Presidential Address

DELIVERED AT THE

CLINICAL SOCIETY OF LONDON,

On January 26th, 1883.

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GENTLEMEN,—Another epoch in the history of the Clinical Society has come to an end, and a new epoch begins to-night with us. Standing thus between the past and the future—between the work which has been done, and the work which lies before us to do—the opportunity naturally offers, and we may profitably avail ourselves of it, to inquire somewhat concerning both. On former occasions of this kind you have been treated to dissertations on subjects occupying at the time the attention of the profession, to discourses on what may be called the "philosophy of clinical medicine," to delineations of the sorts of knowledge necessary to continued advancement in our art; and to eloquent exhortations to active, purposive, honest, clinical work. To-night for the short time that I shall presume to stand between you and the business which we are assembled to consider, I shall take humbler ground, and contenting myself with a short survey of the completed labours of the Society, I shall endeavour to elicit therefrom such fresh helps for future guidance as may enable us to make our printed Transactions still more worthy of the work wherewith we are occupied, and of the workers therein.

It seems to me after a careful examination of the contributions made to the Transactions of the Society during the reign of my illustrious predecessor, that both in matter and in manner, in abiding interest and in clinical importance, in fertility of practical suggestions and in successful boldness of the operative procedures recorded therein, the volumes embodying those contributions will bear favourable comparison with any like number of volumes which have been issued before them. I have discovered in this later work no decay of earnestness or of strength, none of faith or of knowledge, none of foresight or of judgment; and in some ways, as in the recognition of clinical affections unconnected with sensible anatomical changes, it has taken, as I at least am convinced, higher and truer ground.

Examining the whole series of our Transactions, and calling to mind the character of the discussions elicited by many of the papers, one cannot fail to become impressed with a vivid sense of the great and growing importance of the work which the Society is silently but surely doing. The general good results of the Society's work are now so obvious and have been so often mentioned that they need for remembrance only the barest notice. We see how, through diversity of inquiry, community of work, unity of purpose, and severity of procedure, we have improved our methods, added to our knowledge, established new connexions, multiplied our resources, settled a surgical revolution, and widened, deepened, and in some quarters transfigured our views. All this is plain, and the statement of it may be open to the accusation of commonplace. But what is not so plain, and what is not commonplace, is the influence which the Society has exerted and is exerting upon the scientific character of individual workers; and this, although less obvious, is not less important. The Society has improved the scientific characters of good workers; it has implicitly exposed and repressed bad workers; and it has framed for the guidance of all alike a standard of work which is sensibly elevating the profession and benefiting our art.

In the work of the younger members of our profession I see, or at least I think that I see, greater care, patience, and accuracy in observation, a more rigorous fidelity in the record of therapeutical experiments, wiser caution in speculation, graver deliberation in judgment, a growing frankness in the confession of oversights and errors, increasing severity in the siftings and testings of their own conclusions, a readier effacement of the personality in the work, less unseemly eagerness for mere priority of publication, a deepened sense of the responsibilities of premature speech and writing, a rapidly abating bitterness in the conflicts of opposing views, a more robust and manlier spirit of scientific life, and less reluctance in making admission that there is no unconditional truth in the results of our inquiries—no finality in our finished work, no creed in medicine. But the Society has done more than train good workers; it has repressed bad workers. For one competent and conscientious worker there are ten who are incompetent and unconscientious, and who in divers ways hinder our progress and spoil our present possessions. Intolerant of the patient and painful toil of the true worker, acute in power of superficial observation, gifted with a certain showy versatility, quick at catching hold of new ideas, ingenious in guessing, crude in experiment, loose in therapeutic trials, hasty in speculation, strong in dogmatic assertions, accomplished in the transfiguration and use of other men's work, finding what they want wherever they seek it, unhindered by difficulties, facile in speech, ready in writing, thirsting for notice, such men, now, alas, not uncommon in medicine, beget papers so quickly that they can have no necessary relation to time, observation, or thought, and flood our literature with their unworthy if not unveracious lucubrations. The favourite hunting-ground of such men is therapeutics, and their favourite sport is the catching of remedies, the putting of them to new uses, and the setting forth of their successful results. These men discern no difficulties and have no failures; they can illustrate their successes by scores of cases, and explain them by the most ingenious theories. There is scarcely any limit to the extent or the variety of their achievements; and as they flaunt along in the fulness of self-satisfaction, they look down with pitying condescension upon those in the straight and narrow way who conscientiously toil with small success in seeking after truth, but who, nevertheless, missing the praise of men, find strength and solace in their sacred search.

Another great work of our Society has been, and continues to be, the gradual unfolding of the exact relations which morbid anatomy and, incidentally, experimental pathology should hold to clinical medicine. These two chief servants of our art, excited and carried away by their marvellous successes, and assuming a joint sovereignty over our art, look down with condescending superiority upon clinical medicine, ridicule her claims to supremacy, scoff at her empirical distinctions, reproach her with being unscientific, and strive to torture her into a slavish subjection to their theories. But the true relation is not this; it is, indeed, the converse of it. For the structural change is not disease, it is not co-extensive with disease; and even in those cases where the alliance appears the closest, the statical or anatomical alteration is but of one of other effects of physiological forces, which, acting under unphysiological conditions, constitute by this new departure the essential and true disease. For disease in its primary condition and intimate nature is in strict language dynamic; it precedes, underlies, evolves, determines, embraces, transcends, and rules the anatomical state. It may consist of mere changes in the relations of parts, of rearrangements of atomic groupings, of recurring cycles of vicious chemical substitutions and exchanges, of new conditions in the evolution and distribution of nerve force, and any or all of them may be invisible to the eye, inseparable from life, and undiscernible in death. Undoubtedly the appearance of a structural alteration in the course of disease introduces a new order of events, sets in action new combinations of forces, and creates disturbances which must be reckoned with, even as mechanical accidents of the pathological processes. But always behind the statical lies the dynamic condition; underneath the structural forms are the active changes which give them birth, and stretching far beyond the limits of pathological anatomy, and pervaded by the actions and interactions of multitudinous forces, there is a region teeming with manifold forms of disease unconnected with structural change and demanding the investigation which it would abundantly reward. It is in this mysterious and fertile region of dynamic pathogenesis that we come face to face with the primitive manifestations of disease, and learn how much knowledge from various sources is needed to understand it aright; it is here that we see how, without help from physics, chemistry, and biology, collecting, converging, and meeting in a common light, no single problem in disease can be completely solved; it is here that we are made to comprehend how the nature of a pathological product cannot be determined by its structural characters, but by the life history of the processes of which it is only a partial

expression; it is here that we observe how, in therapeutic experiments, the laws of the race are conditioned and even traversed by the law of the individual; and it is here that we discover how clinical medicine is to become a science, and how she is already, beyond question, at once the mother and the mistress of all the medical arts.

And here in this relationship of processes to products, although only incidentally and inferentially touched by them, I must advert for a moment to the results of pathological experiments. As to their necessity and value in the progress of medicine there cannot be any justifiable doubt. But for whatever purpose they may be employed, however carefully they may be designed and executed, however successful may be the precaution taken to exclude error, experiments have their subtle difficulties and dangers which are perilous to truth and cannot be wholly averted. By the prestige of precision, which often undeservedly they possess, undue weight is attached to their results, and by the assumption that in like conditions the results would be the same in man as in the lower animals, flagrant errors are committed and currency is given to false or inadequate generalisations. The experimenter interprets the results of his experiments by the light of their structural results; he forgets, or he ignores, the life-history of the processes by which they have been evolved, and he takes no account of the fact beyond controversy, that different clinical states find occasionally the same structural expression. In such circumstances doubt is inevitable, and it is only to clinical medicine that any just appeal for its solution can be made. To her at last all such experiments must be brought for trial; she must be their examiner, critic, interpreter, user, and judge. And no results of experiments can be made of any avail to medicine, or be used with safety in her service, until they have been filtered through the checks and counter-checks of clinical experience, and have responded to the test and counter-tests of clinical trial. And had these principles exerted their just influence in the recent debates concerning questions of this kind, we should not have had a seton in the neck of a man taken as the parallel of a seton in the neck of a guinea-pig; we should not have had the artificial tuberculosis of the rodent declared to be identical with the natural tuberculosis of the child; we should not have had grey tubercles and caseous pneumonias pronounced, on the grounds of mere likeness of structure, to be of one and the same nature; and we should have been spared the sight of science drunken with success and drivelling with prophecies, soliciting the public on the common highway.

Of such examples of good work done by the Society there are many more known to myself that I could give if time permitted, and doubtless there are many more known to others that I could not give because they have escaped my notice. But I have given enough to justify, and even to require, a little reckoning of our shortcomings. Happily, the Society has still its imperfections; and as they are unlikely to be easily remedied we shall not lack motives to endeavour, nor miss the reward which comes from rightly endeavouring.

One of the defects which I notice in the Transactions of the Society is an incompleteness, outside the immediate objects of interest, in the history of many of the cases recorded therein. If we are to make real use of a case, and if the case is to help us with other cases to make great and true advancement in our art, it must be given to us as a complete whole. We must have not only the family and personal history, but we must have also the nature, assemblage, and progression of symptoms elucidated by all the assistance that can be had from physics and chemistry, from the spectroscope and microscope, from physiology and experiments. I do not presume to say that incomplete cases are either valueless or unwelcome, for doubtless they have often an interest and value peculiarly their own; but I do say that for all the higher and truer objects of medicine our earnest and unfailing endeavour should be to make every case as complete as the collateral knowledge of the time will enable us to make it. Hence the necessity and value of purposive, concurrent, and co-operative work. Hence arose the great medical renaissance of Germany, when Virchow and Brucke, Ludwig and Traube, Meyer and Lieberkühn, Lehmann, and Helmholtz, bringing together the results of their critical and experimental studies in various departments of knowledge, resolved, as if by magic, some of the obscurest problems in physiology and medicine. But of all the defects in the work of the Society, the one which I consider to be at once the most important and the most inexplicable is the seemingly studied disregard, in the treatment of a patient's malady, of those minute conditions of his daily life which practically make or unmake health. So that special management being almost nothing, and special medication almost everything, it would seem as if physiological principles were of no account in therapeutics. But a more critical study of disease will soon convince us that this inference is unsound and its application incorrect. Putting aside for the moment inherited affections and parasitic maladies of whatsoever sort, I shall assume that chronic disease, a state of parts, and not a thing interposed between them, is the eventual outcome of continued violation, conscious or unconscious, of physiological laws as they exist for the race, or as they are conditioned by the peculiarities of the individual organism. I shall further assume that those violations are not exceptional and gross, but daily and minute, and that their effects, infinitesimal from day to day, become visible only after longer periods of time, and so escape recognition, except by those who are trained to discern the causal connexions of subtle things. And I shall furthermore assume that the organism, in virtue of the inherent forces maintaining its solidarity, tends to repair existing, and to repulse threatening disorders, and that when placed in favourable, and liberated from unfavourable physiological conditions, this tendency issues and ends in successful action.

And now let us take for illustration a case of primitive uncomplicated gastric catarrh. Assuredly it does not come without a cause, and it is not introduced from without, but begotten within. It is in fact engendered out of a more or less prolonged and perhaps petty violation of the laws of stomach digestion, and it is maintained by conditions which, although apparently too trivial to be worthy of notice, are yet sufficient to hinder the formation of healthy peptones, and to traverse the reparative powers of the organism. What is ordinarily done in such a case? The patient is told in a vague sort of way to have a light and nourishing diet, to take daily exercise, to avoid anxiety and overwork, and to try bismuth and alkalies with an occasional alterative aperient. Now, speaking, if I may be permitted to do so, from my own experience, it is certain that in such a case management is of more moment than medicine, and that without a rigid and even minute obedience to the physiological conditions of healthy digestion, the chances are small of a speedy and permanent recovery from the gastric catarrh. But the instruction of a "light and nourishing diet" admits of the widest diversity of interpretation, and with the most loyal desire for literal obedience, the patient, according to his age, habits, and station in life, may be unwittingly guilty of doings the most conflicting and injurious. He may eat too often or too seldom, too hot or too cold, effervescent or still. And without a conscious but yet real and great departure from the intention of his instructors, he may frequently refresh himself with cups of tea and coffee and make glad his heart by incidental glasses of wine or of beer.

Now there is a right way and a wrong way in the management of every such case; and although they lie so near each other, and are so much alike that the distinction between them is not easy of discernment, it is necessary that the distinction shall be made. For it is upon giving or not giving a correct and minute attention to the physiological conditions affecting the quantity, quality, and character of the solid and liquid food, the times and the circumstances of eating and drinking, the amount of exercise, work, and sleep, and the adequate discharges of excrementitious functions, that our work will succeed or fail, that our case will turn for evil or for good, and that the patient will either recover his health or drift into permanent valetudinarianism.

(To be concluded.)

DR. BYERS, in reading the medical report at the tenth annual meeting in connexion with the Belfast Hospital for Sick Children on the 26th ult., said that although the Royal University required students coming up for their degrees to present a certificate of having attended hospitals for the treatment of diseases of women and children, and a large number of students had attended the Children's Hospital, it had not seen its way to recognise that hospital as one which could give certificates. Notwithstanding this, the medical staff had gone on with the class as usual, and, instead of having a diminution in the number of students, they had a larger class at the present time than ever they had before.

Clinical Lecture
ON
EXPLORATION OF THE BLADDER BY PERINEAL SECTION OF THE URETHRA,
AS A MEANS OF DIAGNOSING OBSCURE VESICAL DISEASES, AND OF REMOVING THE CAUSE WHEN IT CONSISTS OF TUMOUR, ENCYSTED CALCULUS, ETC.

Delivered at University College Hospital on Jan. 29th, 1883,

BY SIR HENRY THOMPSON,

SURGEON EXTRAORDINARY TO HIS MAJESTY THE KING OF THE BELGIANS, CONSULTING SURGEON AND EMERITUS PROFESSOR OF CLINICAL SURGERY TO UNIVERSITY COLLEGE HOSPITAL, ETC. ETC.

GENTLEMEN,—I have many a time in this place discussed the ordinary affections of the urinary passages, and endeavoured to illustrate before you the best methods of dealing with them. To-day I propose to call your attention to the unusual and obscure cases which sometimes occur, and to a new mode of investigating them, which is, I believe, destined to be extremely valuable. You are to understand clearly at the outset, that the plan I propose is not to be resorted to with anything like frequency in urinary diseases, nor, indeed, is it to be thought of in any single instance until we have failed, after prolonged and intelligent inquiry, by the means generally adopted to ascertain the nature of these affections. But I suppose that all of us, including even those who have enjoyed a very large experience, must confess that now and then a case is presented, manifesting severe and obstinate symptoms of urinary disease, of which, although a careful examination has been made, establishing all the facts which an exhaustive inquiry can elicit, we are unable to make a rational diagnosis, or materially check the progress of the complaint. But in the great majority of cases such an investigation enables us, at all events, to decide in which of the three principal divisions of the urinary organs the disease is chiefly situated—whether in the vesical, the ante-vesical, or the post-vesical region. I say "chiefly," because morbid changes may exert an influence or extend beyond the limits of a single division. Let me just say here, that in the "vesical division" I intend, of course, to include every pathological condition which can affect the bladder, that the post-vesical division embraces all affections of the ureters and kidneys, while the ante-vesical division denotes all diseases to which the prostate and urethra are liable.

Such a classification is a natural one, and it is from a practical point of view desirable to determine at the outset of the inquiry this question of locality.

It will be obvious to every student in regard to the last-named, or ante-vesical, group, that the ability to make a physical examination of the urethra and prostate without difficulty, should leave little ground for doubt as to the diagnosis or the treatment of any affection of that region, although we may not be able always to affirm or deny the presence of some post-vesical affection also, in addition to the more obvious disease.

By way of indicating a typical example of the cases which are presented for careful investigation, because the affection is obscure, let me suppose a patient before us, who may belong to either sex, and who may be an adult of any age, and of whom the following particulars are affirmed.

He or she is the subject of unduly frequent micturition, both by day and night; the act itself is almost always painful, while pain, or at least uneasiness, more or less constant, is felt about the loins or pelvis. Then hæmaturia occurs with frequency, and is more considerable on some days than on others; but besides blood, the urine contains also pus and mucus. The signs and symptoms named have existed for a considerable period of time, and, although varying in intensity from week to week, have notably increased during the last few months. It is manifest also that the condition is not the mere sequel to an attack of acute cystitis, or to local poisoning as by gonorrhœa or the like; nor is it the result of any mechanical injury.

The method of inquiry best calculated to elicit ascertainable facts in such a case, consists in solving the following questions, and these are placed in the order in which it is generally best to determine them.

1. Has the urethra a sufficient calibre? To be ascertained by means of the bougie.

2. Does the patient empty the bladder by his natural efforts? To be ascertained by passing a catheter immediately after the patient's natural act of micturition.

3. Is any enlargement of the parts, either prostatic or vesical, notable on making rectal examination? seeking, of course, either the full, rounded contour of the hypertrophied prostate, or the hard irregular nodules of a cancerous growth.

4. Can the presence of foreign body in the bladder be demonstrated by the sound, or can any other abnormal condition be thus detected?

5. Are the signs of renal disease present in the form of constitutional albuminuria, habitual exfoliation of casts, of tubes, &c., or are there grounds for suspecting the presence of a calculus in the kidney, or possibly in the ureter, or of an abscess or tumour there?

Now, the whole of these queries may be answered in a sense favourable to the patient; in other words, no evidence of the presence of organic disease may be elicited by any one of these inquiries, nothing, indeed, discovered beyond the simple facts which constitute the group of signs and symptoms complained of, and which are of themselves insufficient to determine the nature or the locality of the disease. Let me, however, remark here that observation of the urine from time to time sometimes reveals a sign of great importance not yet mentioned—viz., the presence in it of small fragments of tissue which, under the microscope, show structure resembling that of the fibromatous or villous growths which occasionally spring from the internal coat of the bladder. There is another sign of great importance, second only in that regard to the presence of débris. The stream of urine issuing as usual of the normal tint sometimes changes to a florid red before ceasing to flow. Such an occurrence ought to be verified as fact by more than one observation. When it does occur the bleeding is always vesical or prostatic; when the blood is not only florid but rather plentiful, tumour of some kind is almost always present. Such evidence is highly significant when associated with the history and symptoms just described.

The conditions thus sketched, however, are not those of a common case. In the great majority of our patients a moderately careful and intelligent examination places beyond doubt by adequate demonstration the nature of the disease which produces the symptom in question. Now, it is for the few exceptional cases, and these are always very important ones, with a history of hæmaturia manifestly not renal, already referred to, with a history of treatment, too, by internal remedies reputed to be styptic, and beyond this chiefly watched for the development of more advanced symptoms, but with no purpose of surgical interference—it is for these cases, I say, that I propose to take a new and decided action. And I desire very strongly to submit also that such action ought not to be postponed until a stage has arrived when the operation of diagnosing and efficiently treating the disease may probably be accompanied by serious danger to life. And on this ground especially, that if the cause of the hæmaturia be tumour or growth of any kind the issue will certainly be fatal, unless the disease can be removed by operation.

The first and the essential step in the method I propose consists in examining the entire internal surface of the bladder with the finger, by which means we can easily recognise the presence of any tumour, large or small, or even of an irregularity or roughness in the surface of the lining membrane, or the existence of any calculus lodged in a sac or sinus, or otherwise hidden from the researches of an ordinary sound passed by the usual route through the urethra. Of course it must be sufficiently obvious to everyone that the ability to do this easily, effectively, and safely, offers a valuable addition to the means ordinarily employed, for the most difficult and hitherto intractable cases of urinary disease which come before us.

But you naturally ask me, Is it possible that such an examination can be effected on the terms just named, that is, with ease, efficiency, and safety? I have no hesitation in answering you in the affirmative.

I am, however, quite free to confess that a few years ago

I should have been unable to make such a reply, and that it has only been after some unusual experiences which have fallen to my lot during the last few years, that I have satisfied myself that we can, without difficulty, examine the entire surface of the bladder with the tip of the finger.

Certainly before the discovery of anæsthesia the proceeding would have been impossible. But mere anæsthesia is insufficient: it is essential, in the first place, that the influence of the anæsthetic agent should be carried far enough to ensure complete relaxation of the voluntary muscles, so that their tension should not impede any action of the operator. This condition being fulfilled, it is, in the second place, necessary that the tip of the index-finger should be placed just within the internal meatus at the neck of the bladder. Next, it is to be remembered that when the bladder is empty—that is, not distended by urine or by a calculus—the cavity presented for exploration is a small flaccid bag, sometimes merely a cul-de-sac, every portion of which is situate at a short distance from the finger placed in the position just described. Lastly, if the finger of the operator's left hand be maintained in that position, while he makes firm suprapubic pressure with his right hand, I maintain that there is no difficulty in bringing every portion of the internal surface of the bladder, successively, into close contact with the tip of the left index-finger; a contact which enables him at once to estimate correctly the condition of the interior, in relation to every important particular necessary to be ascertained.

Before considering the best mode of performing the simple operation which enables this exploration to be effected, I will anticipate an objection which may very naturally arise in some minds—viz., that we are not always able to reach the neck of the bladder with the tip of the finger when the incisions for removing a stone by the lateral operation have been completed. Hence it is notorious that a long and flexible index-finger is regarded as an important element in the making of an able lithotomist; yet, although possessed of it, he may still be unable to reach the point in question, in a few exceptional cases.

To this I reply, that there are few bladders indeed into the neck of which, even when the prostate is large, a finger of ordinary length may not be introduced, if carried straight in from the centre of the perinæum, which is the shortest route from the surface. But, in addition to this, I refer to the fact which I have verified by experience—viz., that firm suprapubic pressure made by the right hand of the operator, or aided by an assistant if necessary, will accomplish the object, even in an exceptionally deep perineum, if the index-finger is firmly pressed up from the perineum to meet the other hand. Of course, when large outgrowth of the prostate is present, occupying the neck and cavity of the bladder, it may be impossible to carry the finger to the point desired; but then it is to be remembered that in such circumstances there is no need to make incisions in order to explore the internal surface of the bladder, the case not being an obscure one, but, on the contrary, quite unmistakable.

Let us now consider the manner of operating, so as to place the tip of the left index within the neck of the bladder. The first object to be attained is the opening of the urethra at or about the membranous portion, by the simplest and shortest route from the surface of the perineum, making a passage only sufficing to admit with ease the entry of the forefinger and no more. There can be no doubt that a vertical median incision—that is, one made in the line of the raphe—will fulfil this indication better than any other. In this situation the prominence which is formed by the bended knuckles of the operator, when introducing as far as possible the index-finger, lies in the hollow equidistant between the two nates, and presses directly towards the centre of the bladder. Any incision made right or left of the median line must of necessity lead obliquely to the centre, and be therefore a longer line, because it commences at a point on the external surface more distant from the neck of the bladder than is the raphe of the perineum. Accordingly I prefer, and always employ, a vertical incision in the centre of the perineum, carried straight to the urethra, aiming at the point close behind the bulb, a procedure which as far as the incisions are concerned has been practised by surgeons for centuries to relieve stricture, retention, &c., objects, however, altogether differing from that for which I have employed it, and which is the subject of our consideration here.

The patient then is to be placed in the ordinary position for lithotomy, a rather short, well-curved staff, with deep median groove is passed into the bladder. The operator enters the point of a long, straight bistoury about three-quarters of an inch above the anus, and makes a vertical incision upwards of the skin, not more than an inch or an inch and a quarter in length. He then carries inward the knife deeply, nearly parallel with the rectum, in which the left index should be placed, to inform the operator of the relative positions of the blade and the bowel, until the point reaches the groove of the staff about the membranous portion of the urethra. He is next to incise the tissues covering the groove for about half an inch; the left index is then to be introduced into the wound, the nail insinuated into the groove, then slowly into the urethra beyond, gradually dilating it. When the finger is fairly lodged in the prostatic urethra, the staff is withdrawn, and the finger is pressed firmly onwards until it enters the neck of the bladder; and it should now be felt to fill, or nearly so, the entire wound, and it does so if the incisions have been made as directed. As a rule very little bleeding results. The operator now, maintaining his finger in the situation described, should rise from his seat to the standing position, place his right hand on the patient's abdomen, directly above the pubic symphysis, and make firm pressure into the pelvic cavity. He will soon recognise the end of the left index-finger, and by concerted movements of the two hands he may, as I have already said, examine with ease the upper

FIG. 1.

The forceps for removing tumours (No. 1).

FIG. 2.

Curved forceps (No. 2), for tumours springing from the side of the bladder.

surface of the bladder, and explore the lateral walls, the fundus, and trigone; the latter more completely, if necessary, by placing the other index-finger in the rectum.

You will observe that the procedure thus described is simply a limited external urethrotomy, not "cystotomy," as when incision of the neck of the bladder has also been made; much less is it "lithotomy" in any form. The incision involves only a small portion of the urethra anterior to the prostate and neck of the bladder, which are left perfect and intact throughout. Hence its result is to enable the male bladder to be examined almost as readily as that of the female in its natural condition, an approximation to which is attained by the operation; and in the female, as you know, dilatation of the urethra alone suffices to permit the finger to enter the viscus and explore it.

We will now suppose the result of such an exploration to have been that the operator's finger recognises the presence of a soft protruding mass or flocculent growth springing from some part of the bladder. If brought within reach of the finger by supra-pubic pressure, it is easy to verify the nature of the peduncle, whether it be narrow or broad, together with any other physical characters which are obvious to the touch. The operator will next introduce a forceps, the extremities of which meet by broad roughened edges, so that they nip off, without cutting, the greater part of the salient portions of the tumour. Those that I have designed for the purpose are shown at Fig. 1. The extremity

of each blade meets its fellow by a margin of about an inch long and about one-sixteenth of an inch broad, and these are indented so as to effect a separation of the morbid tissue, with as little chance of producing hæmorrhage as possible. With this instrument the greater portion of almost all growths can be removed. But I soon met with a case in which a small growth protruded close to the neck of the bladder, and although with the forceps described I took away the protruding portions from the other aspects of the bladder, I failed with this instrument to seize the small one close to the neck. For this I designed another forceps (No. 2, Fig. 2). It will be readily seen that by means of this instrument it is easy to remove any growth in the situation described, and both forms should be at hand when making exploration of the bladder. Since the occurrence referred to I have operated in three other cases of large vesical tumour in the male, springing from the left side of the bladder not far from the neck. These I removed chiefly with the curved forceps (No. 2), the other forceps being almost inapplicable (see Figs. 2, 3). Perhaps there are circumstances in which an écraseur may be a more efficient instrument than the forceps for removing a growth; this, however, I venture to doubt. In order to adjust the cord or wire, more room is necessary for manipulation than the incisions described will furnish. It is better to keep these within narrow limits when it is possible, and such have sufficed me for the complete removal by the forceps of a very large tumour. The forceps and the finger are of course to be employed alternately, the one to define clearly what the other is to lay hold of; for I have never found it necessary to make a wound large enough for both finger and forceps to pass in company. But the écraseur would require an accompanying finger, and more space must accordingly be secured for their joint action, which I object to because it is certainly undesirable to make extensive incisions. In the female the écraseur can be more easily managed, because room is more readily acquired without section.

FIG. 3.

The same forceps, or No. 2. Front view, showing divergence of blades by joint, to prevent nipping of the soft parts at neck of the bladder when closed.

After the chief portions of tumour have been removed from the bladder, it should be washed out with a current of cool water, by means of a syringe and tube through the wound, after which a large vulcanised catheter is to be introduced, so that about half an inch lies within the bladder, and in this position tied by stout bobbin to a bandage round the patient's waist. The other end protrudes some five or six inches, and is placed within a bottle, adjusted to receive the contents of the bladder. Hæmorrhage is usually free during twenty-four to forty-eight hours, and then slowly ceases; pain is sometimes but not always severe, and should be controlled when necessary by a morphia injection. The tube should remain from five to eight days and then be removed, when the wound rapidly heals and all the urine soon passes by the natural channel.

A brief *résumé* of some fifteen or sixteen cases, six of which are those of vesical tumour removed in the manner described, will be given in the next number.

AT the annual meeting of the Salisbury Medical Club and Provident Dispensary, held on the 26th ult., Dr. Roberts recommended the proper training and education of women to act as midwives in England on the same plan as exists in Ireland, where, in the centre of every union district, as a rule, is a dispensary, and attached to it is a highly educated midwife with a diploma from Dublin, and who is also an accomplished nurse. Her salary is paid from the rates and she is allowed private practice. If this system were established in England it would, Dr. Roberts said, have a good moral effect, for it would show the humbler classes of society in their struggles and physical sufferings that they are considered and sympathised with.

ABSTRACT OF

Lettsomian Lectures

ON THE

TREATMENT OF SOME OF THE FORMS OF VALVULAR DISEASE OF THE HEART.

Delivered before the Medical Society of London,

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LECTURE II.

MITRAL REGURGITATION.

I HAVE to ask your attention this evening to the subject of the treatment of various conditions of disease associated with a certain imperfection in the mechanism of the heart—an imperfection of closure of the left auriculo-ventricular orifice at the time of systole, occasioning the reflux of a portion of the contents of the left ventricle into the left auricle, the mitral valve being inadequate to close the orifice. Pathological anatomy teaches that such result may be brought about by several varieties of morbid change: (1) By dilatation of the left ventricle without structural disease of the valve; so the free borders of the curtains are drawn upon by their circumferential attachments and prevented from a perfect apposition in systole. (2) By diseased conditions of the valve curtains, the tendinous cords, and fleshy columns, induced by endocarditis and the changes consecutive thereto. (3) By rupture of the valve curtains, cords, or columns, and their consequent incompetence. It has been supposed that rupture may occur from sudden strain in a healthy heart; but Drs. Wilks and Moxon have given strong reasons for the conclusion that there must have been some dilatation, at least of the left ventricle, previously; they consider that this accident is not of infrequent occurrence. (4) By atheromatous disease, patches of which may be observed upon the valve, with consecutive degenerative change, rendering it inadequate. (5) By ulceration of portions of the valve and the surrounding structures.

Mitral regurgitation is not, however, wholly to be interpreted by pathological anatomy. It is to clinical investigation that we must chiefly look for guidance. Of this condition a murmur at the left apex of the heart with the systole is the sign almost, though not quite, pathognomonic. The only condition with which it is likely to be confounded is, in my opinion, pericardial roughening at or about the apex. I have never known a difficulty about the differential diagnosis in the case of adults, but I have observed such difficulty several times in children. In cases of children I have repeatedly said that the quality, character, and situation of a systolic apical murmur will not declare with precision whether there is exocardial or endocardial disease.

Combined clinical and necroscopic observation soon convinces us that in certain cases wherein we have determined from such physical sign that mitral regurgitation existed during life, no lesion indicating inadequacy of the mitral valve to close its orifice has been discovered after death. Moreover, in some cases where we have not only observed the sign mentioned, but where the whole category of signs, symptoms, and consecutive changes which experience has taught us to associate with mitral inadequacy, have been present, the autopsy has demonstrated no determinate lesion at the orifice.

It will best serve a practical purpose, I think, if we divide the cases in which the signs indicating mitral regurgitation are evident into clinical groups, discussing the bearing of the collateral signs upon treatment in each group. We shall thus consider the cases as we meet with them in practice.

I. A case presents itself manifesting signs indicating mitral regurgitation in the subject of marked *anæmia*. We have to inquire whether or no there has been antecedent disease, leading up to organic change at the mitral orifice. Supposing such signs are not in evidence, have we a right to assume that actual mitral regurgitation can be induced by the condition of anæmia, without concurring causes? The answer is, in my opinion, undoubtedly in the affirmative.

In cases of anæmia and chlorosis a murmur is sometimes heard exactly in the site of that indicating mitral regurgitation. Assuming that in these cases there is a veritable regurgitation, how is such brought about? The explanation is, I think, given by the careful experiments conducted by Ludwig and Hesse at Leipzig, which have been admirably summarised by Dr. Donald Macalister.[1] The mechanism for the closure of the left auriculo-ventricular orifice does not reside in the valve curtains alone; the surrounding muscles of the ventricle have an active share, not merely in floating up the valve curtains, but in reducing the size of the aperture which these valve curtains have to close. It is not that the orifice is dilated, but that it is *insufficiently contracted*, the aid of the muscles of the wall of the ventricle which normally produce such contraction being lost.

It is important in regard to treatment to differentiate mitral regurgitation due to disease of the valves from that due to adynamia of ventricle, supposing a systolic apical murmur to be manifest in a markedly anæmic subject. The two signs I would most rely on as pointing to an anæmic causation of the murmur are: (1) an absence of notable cardiac dilatation; (2) a heightened tension in the systemic arteries. I have never known in these cases any marked improvement follow the administration of the usual cardiac tonics, such as digitalis and iron. In the cases attended with hæmorrhage it is, of course, of the first importance to arrest this at its source. Rest and the administration of assimilable food are no less important indications. In this connexion I may call attention to the great value I have observed to attach to *supplementary alimentation by the rectum* in such cases. I have long tried the plan of using defibrinated ox blood for a nutrient enema, as advocated by my friend Dr. A. H. Smith of New York. In comparing results, however, with those in which artificially digested food has been employed, I felt that the balance of evidence is in favour of the latter plan. I have had prepared mixed peptone enemata—beef, milk, and farinaceous food—which have been proved to preserve a perfectly good condition for long periods. These have the advantage of being available at a moment's notice, it being only needful to render them diffluent with warm water. From two to four ounces are injected slowly into the rectum, and repeated every three or four hours. In many cases I have caused to be added the dry ox blood (sanguis bovinus exsiccatus), in the proportion of a drachm to the ounce. I have lately, however, adopted a simpler plan with good results, using, instead of peptoned food, equal parts of warm milk and cod-liver oil as a nutritive enema.

In the treatment of cases of idiopathic anæmia I have found no drug treatment so efficient as the administration of arsenic (Fowler's solution in small doses gradually increased). I have observed, as has been recorded by others, complete recovery, with the disappearance of the cardiac murmur, under such treatment, combined with rest and careful nutrition.

II. We will now assume that a systolic apex murmur is present in a patient showing signs of *a neurosis of the cervical sympathetic*. It has been frequently noted that a murmur at the apex has existed in the subjects of exophthalmic goitre (Graves' or Basedow's disease); yet, on post-mortem examination, no disease at the mitral orifice has been discovered. In these cases anæmia may be present, but not of necessity. It is not causally related with the phenomena. Organic heart disease may co-exist, but such coincidence is rare. It is important to recognise, especially with regard to treatment, that in the subjects of Graves' disease mitral regurgitation occurs without valvular lesion. The record of fatal cases in which disease of the cervical sympathetic ganglia has been actually demonstrated in Graves' disease is now tolerably extensive. Trousseau, Cruise, and McDonnell, Keith, and Shingleton Smith have recorded cases in which some of the ganglia (usually the inferior cervical) have been enlarged, atrophied, or degenerated.

As regards treatment, in the cases which I have seen, ordinary tonics and digitalis have been of very little benefit, but great improvement has followed galvanisation of the cervical sympathetic. I have employed the continuous current from twenty to forty elements (Léclanché). One pole may be placed behind the lower jaw in front of the sterno-mastoid, and the other either at a corresponding point of the opposite side, or at the nape of the neck right or left of the vertebra prominens, or above the sternum at the inner edge of the insertion of the sterno-mastoid.

III. I now turn to a third group of cases, and assume that the indications of mitral regurgitation are manifest *during the evolution of certain fevers*. In the course of typhoid fever, for example, a systolic murmur may be discovered at the apex. There is no history of its existence before the attack, but it has arisen during the course of the disease. The murmur is an evanescent one. To what is it due? The changes are, according to M. Hayem's observations, not in the endocardium nor pericardium, but in the muscle of the heart. In fatal cases the muscular fibres present a granular and fatty degeneration or a special form of vitreous degeneration, the areas of morbid change being disseminated in an irregular manner here and there throughout the cardiac muscle. There are, besides, a multiplication of the muscular nuclei and aggregation of cellular elements. In fact, the disease is a form of myocarditis. It is, I think, sufficiently proven that the murmur occasionally heard at the apex in cases of typhoid is due to regurgitation on account of imperfect apposition of the valves of left or right sides from enfeeblement by disease of the muscular fibres in certain areas of the heart wall. It does not appear that the occurrence of such murmur renders the prognosis more grave; but sudden death, in all probability from myocarditis, may occur in typhoid without any special evidence of direct cardiac impairment previously. Its occurrence, however, should make us watchful, and cases presenting any of the phenomena indicating myocarditis in typhoid should be observed and treated with a view of preventing subsequent dilatation. Analogous myocarditis has been described in variola by MM. Desnos and Huchard, and in severe forms of intermittent fever, as observed in Africa by M. Vallin.

It is obvious that a recognition of the nature of the alteration which produces a mitral regurgitant murmur in the cases we have been considering must have an important bearing on treatment. We need not fear that endocarditis has arisen as a complication, nor have we to debate as to an anti-rheumatic plan of treatment. The indication is to keep the disturbed muscle of the heart as tranquil as possible, and, of course, to promote as good a nutrition as the circumstances will permit.

IV. I now come to the fourth group, and assume that a murmur indicating mitral regurgitation is observed in the subjects of *acute or subacute rheumatism*. Attention has been frequently drawn to the fact that murmurs may arise in the course of evolution of the disease and yet disappear, and patients on convalescence may be supposed to be free from cardiac complication. I have in my former lecture deprecated this as a too hasty conclusion. It may be well to inquire, in the first place, what is the probable nature of these transitory or evanescent murmurs, which are by no means uncommon, for they occur, as the statistics of the London Hospital for 1880 and 1881 show, in about ten per cent. of the cases. Rheumatism is a disease notably attended with anæmia. Is it probable that these bruits are of the nature of those which we have considered to be causally related with anæmia? The evidence collated for me by Dr. Gabbett as to the site of such transient murmurs is, I think, against this view. It is well known that the murmurs noted in connexion with anæmia, though sometimes heard at the apex and indicating mitral regurgitation, are far more frequently audible at the base over the site of the pulmonary artery or aorta. Even when heard at the apex they are usually accompanied by other murmurs at the base. In rheumatism, however, the usual site of the evanescent murmur is the apex. The totals for 1881 show as follows: Transient murmurs in mitral area, 15; at base and apex, 7; in aortic area, 5; in pulmonic area, 31. It would appear that a murmur which might suggest an anæmic causation is almost confined to a first attack of rheumatism; after two or more attacks no basic transitory murmurs are recorded. Then, as regards the transient systolic murmur in the mitral area, we may ask whether it may be due to myocarditis. If so, it does not resemble in associated phenomena the murmur observed in typhoid, &c. The peculiar perturbations of rhythm are not recorded, and it would appear probable that if there be myocarditis, it does not occur in disseminated areas, as in typhoid. May it not be that the temporary regurgitation is due to a localised myocarditis developed in the neighbourhood of a swollen valve or inflamed endocardium? Thus, though the swollen valve might not be in itself incompetent, a temporary in-

[1] Remarks on the Form and Mechanism of the Heart, &c., British Medical Journal, Oct. 28th, 1882, p. 825.

competence would be produced by the impairment of the force of the muscle. As the myocarditis subsided the valve would again become competent, but probably in many instances to present a renewed imperfection when the swelling in the course of time has given rise to fibrous change and consequent shrinking. I draw attention to this as a caution as to the expression of any opinion that a valve is sound after a murmur is developed during the early stages and disappearing during the later period of rheumatic fever.

Supposing that mitral regurgitation is left after rheumatic endocarditis, it is well known that compensation may be effected and the health of the patient be preserved for very long periods with no subjective symptom of cardiac unsoundness. The chief factor in inducing such compensation is a conservative hypertrophy of the right ventricle, and the sign of such compensation (supposing the amount of blood regurgitating to be very small) is an accentuated second sound over the pulmonary semilunar valves. Supposing that we are satisfied that there is due compensation, medicinal treatment may be entirely unnecessary. I have no doubt that a vast amount of injury has been done to patients by a shaking of the head of the auscultator over the subject of a mitral murmur, who, perhaps, was no worse at the time of examination than he was ten, twenty, or thirty years before, and who might continue uninfluenced for harm by his cardiac complication all his days. He should be cautioned against strain, against exposure, and against irregularities of diet, &c. He may be better occasionally for treatment by iron tonics, cod-liver oil, or strychnine; but any special *cardiac* treatment is out of place. Not so, however, if there be evidence that compensation is beginning to fail. I will pass in brief review the chief agents which are of service in such cases:—

1. *Digitalis* is *facile princeps* of drugs in the treatment of imperfect compensation. A little over a suitable dose, however, may induce nausea, vomiting, anuria, irregularity of pulse, and, instead of slowing, an enhanced rapidity of heart's action. Whilst a dose which produces favourable result is constant and discoverable in regard to a large majority of patients, in a minority such dose is inconstant, and even unattainable. As regards the preparation used we may have differences of result, and we know that, as in the case of so many vegetable products, the energy of different samples may vary. The pharmaceutical equivalents of the official drugs (P.B.) are a little awkward: one grain of the dried and powdered leaves = one-third of an ounce of the infusion = eight minims of the tincture. Practically, I consider the tincture most reliable, and that usually in small doses five minims to ten minims increased only in exceptional cases, and then occasionally reduced. Next in value I consider the powdered leaves (half a grain to two grains), the combination of which with alkalies I shall hereafter consider. In some cases, even by increasing the dose, no apparent influence appears to be exerted by the drug; then *digitaline*, especially when hypodermically injected, has been observed to give in many cases good results. The digitaline hitherto prepared has probably scarcely ever been the pure alkaloid; but it appears likely that by a new process it can be obtained in a state of purity. The usual dose for hypodermic administration is $\frac{1}{75}$ grain. For a child of ten years of age with dropsy and great distress from mitral regurgitation, I found, after injection of $\frac{1}{150}$ grain of digitaline hypodermically injected at intervals of four hours, the pulse-rate reduced by eight per minute after each injection. In this case recovery took place from the urgent symptoms, and the child was sent to a convalescent home. She relapsed, however, and died three months afterwards, when away from our observation. When the right ventricle has dilated so far that there is marked tricuspid regurgitation, the beneficial action of digitalis is by no means so decided. Nevertheless (especially when purgatives are also administered), the signs of tricuspid regurgitation may pass away. In other cases no such favourable result attends. In fact, as *a priori* considerations might suggest, any increased power of systole which the digitalis may bring about serves the more to force back the blood through the imperfect tricuspid orifice into the venous channels. Yet I have seen good results when the administration of digitalis has been combined with abstraction of blood by leeches or cupping.

2. *Belladonna* is, I think, only useful in the treatment of failure of compensation in cases of mitral regurgitation when combined with, or *occasionally* substituted for, digitalis. Belladonna, like digitalis, increases the power of systole and raises the arterial tension. As Dr. Lauder Brunton has shown, it paralyses the cardiac terminals of the vagus and reduces irritability by an anæsthetic effect on the sensory nerves of the heart. Very useful occasionally, it by no means compares with digitalis for prolonged employment. The hypodermic injection of $\frac{1}{75}$ grain of digitaline with $\frac{1}{75}$ grain of atropine I have found very satisfactory.

3. *Cascara.*—A tincture made from the bark of the ordeal bark of West Africa has been employed as a substitute for digitalis. Dr. Lauder Brunton in his Gulstonian Lectures for 1877 published the results of elaborate experiments as to its physiological action. In kind this action appears much to resemble that of digitalis. Dr. Brunton has said: "Digitalis has hitherto been our great resort in mitral disease, but I think it probable that in cascara we possess a drug more powerful still; at least its effect upon the arterioles appears to be greater than that of digitalis, and it is quite possible that it may succeed in those cases of advanced mitral disease where digitalis fails." I have employed the tincture of cascara, substitutively, for digitalis, in a number of cases, but I have not been able to convince myself that it has any more beneficial action in mitral disease.

4. *Caffeine.*—Gubler, Shapter, Leech, Milliken, Brakenridge, Huchard, and others have recorded observations showing the beneficial action of caffeine (or its citrate) in cases of cardiac disease, especially where dropsy is a marked symptom. Some of the cases show very forcibly that a beneficial influence has been exerted by the drug. There are many apparently contradictory data as to the physiological action, but the cardinal points are: that it at first quickens, but soon after slows, the heart's action; that it increases the general arterial tension, and acts in a very pronounced manner as a diuretic in cardiac dropsy. Dr. Brakenridge advises that digitalis be administered previously to, or in conjunction with, the citrate of caffeine, and that small doses (three grains) should be employed. M. Huchard, however, recommends that caffeine, and not its citrate, should be used, and that in larger doses (four grains to six grains); it produces diuresis more rapidly than digitalis, and has none of its nauseating effect. I have employed citrate of caffeine in substitution for digitalis without any marked benefit being manifest; indeed, I have found that in some cases it has induced insomnia. Nevertheless, I consider that the evidence is such that I should certainly employ it in any case where, in cardiac dropsy, a rapid diuretic effect is desirable.

5. *Convallaria majalis.*—This is the well-known lily of the valley, long employed by the Russian peasantry as a remedy for dropsy. Prof. Sée has shown that it has an action much resembling that of digitalis. An extract of the whole plant is employed, in doses of from five to eight grains three times a day. In cases of mitral regurgitation with severe symptoms it entirely relieved the cardiac distress and, manifesting a decided diuretic action, removed the dropsy. Professor Sée considers that it may be used in all forms of heart failure, for it has none of the nauseating effects of digitalis; nor does it exhaust the contractility of the heart and arteries. I have employed it as a substitute for digitalis, and am convinced of its action in promoting a stronger ventricular contraction; but I am not yet convinced of its superiority to digitalis.

6. *Morphia.*—The hypodermic injection of morphia, as advocated by Dr. Clifford Allbutt, is a most valuable adjunct to the treatment of failure of compensation in cases of mitral regurgitation. I have found preparations of opium by the mouth generally disagree, but not so when the alkaloid is hypodermically injected. It is often very advantageous to combine the morphia with atropia or digitaline.

V. By no means all the cases which come before us showing mitral regurgitation are to be explained by the modes of causation we have hitherto discussed. In a considerable minority such regurgitation is secondary to continued high tension in the aorta and arteries. It is important for prognosis and treatment to discriminate the cases of *mitral regurgitation due to heightened arterial tension.* In such the apical murmur is usually *post-systolic*, the signs of hypertrophy preponderate, the patient is usually, though not always, of middle or advanced age, the advent of signs has been gradual. Often the arteries may be observed to be tortuous and hard. The most important signs, however, are the discovery either of aortic disease or of accentuation of the aortic second sound with pulse of high tension. Chronic renal disease may be also manifested. When not so complicated great improvement often follows a prolonged treatment by alkalies with iodide of potassium. A carefully regulated diet is most important, and those patients

do best, I am convinced, who entirely abstain from alcohol. It is by no means infrequent to find a murmur of regurgitation brought about by such cause wholly to disappear. Their epi-phenomena are often to be successfully treated by the administration of nitro-glycerine or the inhalation of nitrite of amyl.

NOTES ON SURGERY.

By WILLIAM S. SAVORY,
SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

On Syme's Amputation.

EVERYONE knows that Mr. Syme attached very great importance to certain details of the admirable operation of amputation at the ankle-joint that goes by his name. He insisted especially upon the position of the incision across the sole. "The foot being placed at a right angle to the leg, a line drawn from the centre of one malleolus to that of the other, directly across the sole of the foot, will show the proper extent of the posterior flap. The knife should be entered close up to the fibular malleolus, and carried to a point on the same level of the opposite side, which will be a little below the tibial malleolus." Thus he laid it down, and he dissected the flap off the os calcis from below upward. These directions were for a long while rigidly observed, but of late years surgeons have been less particular in the direction of the incisions. That across the sole is often made obliquely backward, at the expense of the flap. The incision across the front of the joint is also varied, sometimes being quite transverse, at others curved towards the toes. With regard to the heel, of course the more obliquely backward the incision of the sole is made the less difficulty will there be in the reflection of the flap, if done from below upward; but it seems to me of importance to preserve at least the whole of the heel, so that it is best to make the incision a vertical one. The thick integument of this region forms so capital a pad on the extremity of the stump that care should be taken to secure the whole of this, and to bring it well forward in the first instance, for during repair and afterward there is a tendency in this to be drawn backward. Of course it will not be forgotten that after this operation the person stands and walks directly upon the extremity of the stump. With regard to the particular points where the extremities of the vertical incision should be, some surgeons keep them both on a level with the external malleolus, but I prefer to have them rather more forward—that is to say, on a line with the extremity of the internal malleolus, but not extending higher than the level of the external one, for the base of the flap is thereby so much broader. This is, I think, an advantage, and, so far as I can see, there is no objection to it. But of all changes in the operation I should attach most importance to the way in which the dissection is done. I greatly prefer, after making both incisions, to open the joint from the front, and then to work from above downward. This mode of dissecting out the os calcis is far easier than the original plan of dissecting from below upward, and there is less danger of inadvertently cutting into the substance of the flap. I have adopted this plan now for several years in many cases, and I cannot doubt that it is a much better one of performing the operation. By dissecting out the os calcis from above downward, and so escaping the only difficulty in the operation—that of turning off the heel—there is no temptation, as in the other way, by carrying the first incision obliquely backward, to sacrifice some portion of the flap.

On Ligature of Arteries.

Of late years a practice, which appears to me to be fraught with mischief, has come into fashion in the operation for ligature of important arteries in their continuity. I mean this: that after the neighbourhood of the vessel has been reached by a few preliminary incisions, it has become the custom to lay aside the knife and to seek for and expose the artery by tearing through the investing tissues with the end of a director or some similar instrument. The motive for this practice, which, I think, has been derived from the Continent, is obvious enough, and similar to that which formerly suggested the use of a silver blade. It is the fear of injuring the artery itself, or of some branch near to its origin, by the knife, when dissecting closely upon it, and so of having to deal at a critical stage of the operation with troublesome hæmorrhage. But if the knife be used with fair knowledge and ordinary skill, the artery itself, or even a branch of it, ought not to be in danger; and assuredly the risk of yet more serious injury in another way from forcibly tearing through the textures with a blunt instrument is imminent. Indeed, it is almost impossible to avoid bruising the artery or vein, or to make a clean and satisfactory isolation of the artery by this plan. It gets exposed, indeed, and a ligature can be passed around it; but the surface of the vessel, when thus separated from its sheath, does not appear smooth as it ought to do, and already before the operation is finished there is often evidence of some extravasation of blood upon the surface. The less complete the isolation of the artery at the particular spot where the ligature is to be applied, so much the greater is the risk of injuring the vein by the needle. Herein, I think, lies the chief cause of the dangerous accident of transfixing the vein. If all the work of exposure and isolation of the artery is to be done with a director or some such instrument, if no cutting is to be allowed and only tearing practised, what is to become of the rule, so universally insisted on, of opening the sheath with the least possible amount of disturbance, and of separating it from the artery only to an extent sufficient to allow the needle to pass? How is the sheath to be opened and treated, according to the recognised principles of surgery, with a director? While it has happened to me, in more than a single instance, to see the artery injured both on the dead and living by the abuse of a director, I have never seen the artery itself cut by the knife, even when it has been used too freely by awkward hands. I believe a surgeon who is fairly up to his work will tie an artery more safely by exposing it with the knife than with such an instrument as a director, and there is probably no operation in surgery in which the result so depends on the manner of performing it. It is not enough to tie the vessel and nothing but the vessel. It is of supreme importance to tie the vessel with the least possible amount of disturbance or injury. And, while writing on this subject, I may add that, with this object in view, perhaps it is more convenient to carry the needle round the artery, without the ligature, and to pass the thread through it afterward.

FIBRINOUS COAGULA IN THE HEART AND PULMONARY ARTERY.

By SIR JOSEPH FAYRER, M.D., F.R.S.

(Continued from p. 52.)

IN a recent communication I referred to thrombosis of the pulmonary artery and clots in the heart as a cause of death in certain diseases, and especially after injuries and surgical operations, even where there has been no indication of pyæmia or septicæmia. Though unable to explain the pathogenesis of this dyscrasia, I remarked that whilst it seemed to be most liable to occur in malarial climates where the subject of it had become more or less cachectic, yet it is not confined to malarially affected individuals, but may, and probably does, take place under other circumstances in all climates, and that it is perhaps a more frequent direct cause of death than is generally supposed. Of its importance as a cause of disease of a secondary character disseminated throughout the body in the form of local death, of parenchyma in the viscera, which, if life be prolonged sufficiently, become disseminated abscesses from suppuration taking place round the dead patches; or, again, of the influence of thrombosis of this character when it occurs in the arterial system, producing gangrene or other dangerous results, much might be said, and I have described it in detail elsewhere; but for the present I refer only to that form which affects the right side of the heart and pulmonary artery, whether in the form of clots moulded into the auricle and ventricle, extending into the ramifications of the pulmonary artery like the branches of a tree, or in the pulmonary artery itself; or it may be impacted in the form of a small nodule or flake in the ostium of the pulmonary artery, equally dangerous in its effects by preventing access of blood to the lungs.

The symptoms of this dangerous morbid state are described in the following brief abstract of cases, so it is needless to

detail them further than to say that the impeded pulmonic circulation is indicated by hurried, gasping, painful respiration, and that the struggle for breath is often most distressing to see, as it is agonising to the sufferer, who remains painfully conscious of his condition till the last. Happily in some cases, after a protracted struggle of apnœa, recovery occurs. I suppose by the disintegration and removal of the clot, which disappearing, is only too likely to cause secondary mischief as the result of the emboli thus carried into the pulmonic circulation. Where pulmonary or cardiac thrombosis takes place as one of several conditions of exhaustive disease, or where it occurs in surgical fever, pyæmia, septicæmia, or in malarial conditions, whether of fever or of splenic cachexia, the symptoms are naturally all associated as part of the disease, and special prominence is not assigned to this as a cause of death. But when it comes on suddenly in a case which in all other respects appeared to be doing well, its pathological and clinical interest are enhanced.

An English sailor, aged twenty-nine, who had been living in Calcutta for some time, applied one morning at the hospital, and had a catheter passed for a slight stricture from which he had suffered for some years. The resident surgeon passed No. 8 with ease, and relieved him of retention of urine. He returned to the hospital at 3 P.M., saying he felt ill. He had a rigor after returning home in the morning, became restless, feverish, and delirious. On the 20th he had pain in the right hypochondriac region; his breathing was hurried, and his countenance anxious. He had had loose evacuations during the night. The breathing became more gasping, though air entered freely into the lungs. The distress rapidly increased, breathing became more hurried, and gasping, and he complained of a sense of choking. At 10.30 P.M. he passed urine freely. Stimulants of ammonia with quinine were given, and turpentine stupes applied; but no improvement took place, and the house-surgeon reported that he died in "a fit of gasping" at 11.30 P.M. There was no pyrexia, and he was perfectly rational to the last. His struggles for breath were most distressing to witness.

The post-mortem examination revealed lungs hypostatically congested. The liver was slightly enlarged but otherwise normal. The spleen was normal. The kidneys showed signs of commencing degeneration. The bladder was slightly thickened; the urethra slightly thickened. There was neither wound nor false passage. The tissues about the neck of the bladder were natural, so was the prostate. The pericardium contained a small quantity of straw-coloured serum. The heart was normal, but its cavities contained firm adhering decolourised fibrinous clots. Those on the left side extended from the auricle into the ventricle, and thence into the aorta for about three inches. In the right cavities the clots extended on into the finer ramifications of the pulmonary artery; they were firm, decolourised, and adherent, and not only obstructed the ventricular and arterial openings, but extended far into the subdivisions of the pulmonary artery, ramifying like the branches of a tree. I made the following remarks on this case at the time:—

I have repeatedly noticed this condition as a cause of death in surgical cases, but I have never seen one more striking or more uncomplicated than this. I have before expressed my suspicions that malaria has much to do with inducing the condition of blood in which this fibrinous coagulation occurs, as a result of some disturbance of the innervation by a surgical operation. In this case the simple act of passing a catheter through a slightly strictured urethra was the exciting cause. The patient cannot be said to have been, strictly speaking, in a healthy condition, although he appeared in perfect health, and no lesion was discovered that could account for death. Sufficient, however, existed to suggest how, with the addition of the shock of the operation and the consequent urethral fever, the blood-change and consequent fatal apnœa were brought about. Something was said about his having recently suffered from intermittent fever, but no precise information on the subject was recorded. Be that as it may, he had none of the appearances of a person suffering from malarious cachexia. But no one in Bengal can be said to be exempt, especially at that season of the year (June); and I am disposed to believe that this malarious influence is in persons of irritable constitution, and notably in those suffering from stricture, a predisposing cause of that dangerous condition in which fibrinous coagulation is likely to occur. It has long been known that death may occur rapidly from this cause in puerperal patients, and that in diphtheria, croup, cholera, and other exhaustive diseases it is not unfrequent; and in such cases, where the blood must be in an altered condition, and the muscular fibre of the heart weak, although the precise nature of the blood-change may be obscure, it is not difficult to understand why a fatal result should occur. But in cases such as the preceding, and in many others where fatal apnœa has supervened suddenly from thrombosis of the pulmonary circulation after surgical operations, when the patient appeared to be doing well, it is more difficult to comprehend.

In the *Edinburgh Medical Journal* for April, 1870, p. 888, the following remarks were made by Mr. Annandale, now Professor of Clinical Surgery in the University, in reference to the death of a patient who had undergone amputation at the hip-joint:—"The disease in this case was a cancerous tumour affecting the lower third of the femur, and the patient lived until the fifth week, when he was suddenly seized with difficulty of breathing, and died in forty hours. The post-mortem examination showed a partially decolourised clot in the pulmonary artery. The surfaces of the flaps were firmly united; there was no abscess in the acetabulum; there were no traces of pyæmia." I then remarked, as I now repeat, that if the cause of death be sought for in all cases that terminate fatally after surgical operations, especially where there is cachexia, or where there has been much loss of blood, or where a large portion of the body has been removed, it will probably be found that this is occasionally the cause of death, and even after operations of much less severity than removal of a limb.

In August, 1871, I saw a young and robust Englishman, aged twenty-eight, of active, temperate habits, resident for some years in Calcutta, who was reported to be suffering from a swelling in the groin. He was feverish, with pulse 104, having had severe rigors previously. He had great thirst; bowels acted, voiding greenish matter. It was suspected that he might have hernia. The fever passed off early next morning. I found no signs of hernia. At 2 P.M. next day alarming symptoms came on; at 4 P.M. his breathing was very hurried, and his body was covered with cold sweat, with a rapid and feeble pulse. I found him sinking; dyspnœa intense; breathing gasping and hurried; face and lips dusky and livid; pulse imperceptible. He was quite conscious, and died within half an hour. The post-mortem examination showed that the inguinal canals were perfectly normal. The glands in the groin were somewhat enlarged. The intestines were normal, and no choleraic fluid was found in them. The lungs were hypostatically congested and œdematous, and the bronchial mucous membrane was also congested. The heart was normal and firmly contracted; it contained firm decolourised clots extending into both the aorta and pulmonary artery; all else was normal. This appeared to me an example of pernicious malarial action, and of the rapidly fatal effects sometimes produced in the hot, damp, malarious season. Death was due to the pulmonary engorgement, accelerated by the fibrinous coagula in the right side of the heart and pulmonary arteries. The overwhelming action of the malarial poisoning accounted for the rapidly fatal result. The patient was a healthy, temperate man, his organs were sound, and he had not been ill for months before this attack. The second paroxysm proved rapidly fatal, despite all attempts to relieve him. Quinine and stimulants were freely given by mouth and injection; warmth and revulsives were also freely applied. This case occurred at the most trying time of the year, when the temperature was high, probably 90°, and the air saturated with moisture. He had been exposed to the sun during the greater part of the day on which he was attacked.

The following abstract of a case has just been sent to me by Surgeon S. A. Crick, of the Army Medical Department:—

"*Fibrinous Coagula in the Heart resulting from Malarial Poisoning.*—This case now appears to me to have been of this kind. When in Hong-Kong last summer, an officer (a surgeon-major) arrived there about June; he was a fine, strong, healthy-looking man, and had just come from England. Within two weeks of his arrival he was suffering from malarial poisoning, the brunt of the disease being thrown upon stomach and intestines, with a slight amount of associated intermittent fever. A state of malarial cachexia rapidly supervened, and when I left Hong-Kong, on August 17th last, he was looking extremely ill. A few days ago I received a letter from the principal medical officer at Hong-Kong, informing me that the gentleman had been invalided and left Hong-Kong on September 1st. Four days after leaving he is said to have had a sudden attack of syncope,

from which all efforts of the surgeon on board failed to revive him, and he therefore died and was buried at sea. I am convinced this must have been a case similar to those observed by yourself. I believe in this case the cause of death was certified as: (1) Malarial poisoning; (2) dilatation of heart. I saw him daily at Hong-Kong, and certainly detected nothing cardiac. I think I can recall one or two cases of sudden death occurring in the course of continued fever which might probably be referred to a similar cause. I trust your remarks will stimulate medical men having to do with malarious cases to careful discrimination between ante- and post-mortem cardiac and pulmonary clots."

A native student, aged twenty years, was admitted into hospital at Calcutta, on 15th April, 1870, with a sloughing portion of the integument of the leg, caused by a blow. He had been suffering from malarial fever and enlargement of the spleen for five months, a statement which was confirmed by his cachectic appearance. He was depressed and feeble, with a small and quick pulse, but no diarrhœa or fever. Stimulants with quinine and a generous diet were ordered. He remained in this condition for two days, during which time a portion of integument below the knee, of about two inches in extent each way, sloughed. On the 18th his respiration became hurried. There was slight increase of temperature, 99·4°, but it fell below the normal standard afterwards. Ammoniacal stimulants and quinine were continued, but there was no improvement. The respiration became more gasping and hurried; no cardiac murmurs were heard, the breathing became more gasping, and he died at midnight of the 20th. Post-mortem examination: Liver normal; spleen much enlarged. The lungs were hypostatically congested, a portion of the lower lobe of right lung was consolidated, but there was no other disease. The heart was healthy, but it contained a firm, fibrinous, decolourised coagulum, extending from the right auricle, where it was reddish in colour, into the right ventricle, where it was straw coloured; thence into the pulmonary artery, where it was firm and moulded like the branches of a tree, in the subdivision of the artery. The left ventricle, auricle, and aorta contained similar coagula. There was no other disease except the patch of gangrene of the integument below the knee.

A gentleman, aged forty-five to forty-six, who had returned from a tropical and malarious region, came under my observation last year. He was cachectic and weak, having suffered from dysentery and fever. He suffered considerably from evidences of malarial poisoning, and frequently from intense neuralgia. There was nothing to indicate liver abscess during life; indeed, the history of the case spoke of liver contraction. He died a few days after his arrival. I found him on March 5th suffering great abdominal pain. Pulse quick and feeble; skin clammy; temperature subnormal; breathing hurried and shallow. This rapidly became much worse, and continued until death, at 10.30 P.M. on the 6th. The lungs after death were found pale and emphysematous, but hypostatically congested at the base, otherwise normal. The pericardium contained a considerable amount of serum. The heart was normal, but the right auricle and ventricle were nearly filled with firm decolourised coagulum, which extended into the pulmonary artery and its minute ramifications. The left cavities of the heart were empty; the heart itself and its valves were normal. There was no sign of dysentery; the intestines, kidneys, and spleen were normal. These appear to me sufficient to illustrate the pathological condition to which I have referred. In a future communication it may be well to illustrate the effects of thrombosis arising from such causes, as it occurs in the left cavities of the heart or their arteries.

Wimpole-street, W.

ANTE-MORTEM COAGULA IN THE RIGHT CHAMBERS OF THE HEART AND PULMONARY ARTERY.

BY JOSEPH EWART, M.D., F.R.C.P. LOND.

I NOTE from THE LANCET of the 6th and 13th January that Sir Joseph Fayrer has recalled the attention of the profession to a mode of death which may occur after injury and operations in hot and malarious countries, occasioned by the formation of decolourised coagula in the right auricle or ventricle of the heart or both, and often extending, to a greater or lesser extent, along the distribution of the pulmonary artery. He, I think, appropriately associates this very mortal condition with some hitherto not fully understood lowered vitality of the blood and its containing apparatus, induced by the action of malaria upon the vaso-motor centres and the hæmopoietic organs. Under such circumstances, although no very marked or discernible deterioration of the general health may be apparent, and especially if the temperature be high and the atmosphere very humid, even slight injuries and moderately severe operations may and do, often unexpectedly, end unfavourably from this cause, but for the appearance of which the cases would, in all probability, have terminated in recovery. When there are manifest evidences of malarial poisoning, such as the facies miasmatica, anæmia, portal plethora, impeded and disturbed digestion, feebleness of the circulation with or without splenic or hepatic enlargement, &c., the danger of death proceeding immediately from the precipitation of these ante-mortem coagula is proportionately increased; and when, as is frequently the case, during the malarious season in India and other tropical or tropoidal regions, the patient is actually suffering from recurrences of periodic fever, or may have recently been so affected, the risk of a fatal issue from this among other causes is so over-ruling that, except on a careful calculation of the chances to save or prolong life, surgical interference had better be postponed, because experience shows that it is unjustifiable.

The group of cases referred to as occurring most frequently in hot and malarious countries is distinctly demarked, according to my experience, from the still larger class in which ante-mortem coagula in the right cavities of the heart and pulmonary artery often expedite, or constitute the immediate cause of death, in cases of surgical or puerperal septicæmia and pyæmia and other exhausting diseases. Not only is this deposition of the fibrin of the blood in the right cardiac chambers often the immediate cause of death after surgical operations and injury in tropical and malarious climates, and altogether independent of any recognisable septicæmia or pyæmia either during life or on post-mortem examination, but I have repeatedly observed that in purely medical cases of malarial poisoning, where the patients, though not in what would be called robust health, have been able to go about their ordinary avocations, death has supervened from the obstruction caused by the more or less rapid accumulation of decolourised coagulum in the right auricle and ventricle, or in the pulmonary artery after what, at the commencement, seemed to be a trivial complaint. That such coagula may and do occur under similar bodily conditions, more frequently after operations and injuries, need therefore create no surprise.

What may be the exact nature of the changes in the blood and its conducting channels which favour and promote the precipitation of its fibrin with such fatal effect in the situation and manner described, it is, in the existing state of our knowledge, impossible to say. The fact, however, remains that in persons who have been subjected to malarious influence, and more particularly in those who have suffered from any of the types of periodic fever and sustained some damage, though not always apparent, to the vaso-motor centres, spleen, liver, and blood, the possibility of death supervening from an ante-mortem clot, so filling up the right cavities of the heart and the pulmonary artery as to fatally obstruct, in a preponderating majority of instances, the course of the circulation through the lungs in surgical cases in India, is a contingency which, since Sir Joseph Fayrer first directed attention to the subject in 1866, can scarcely any longer be excluded from consideration either before or after operation.

Brighton.

OBSERVATIONS, CLINICAL AND SANITARY, CONCERNING THE BACILLUS OF TUBERCLE.[1]

BY G. A. HERON, M.D.,

SENIOR ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

IN June last I began to give attention to the clinical aspect of Koch's great discovery of the bacillus of tubercle. Sixty-two patients, amongst others, have since that time come under my observation in whose sputa I have detected this organism. I selected these cases almost exclusively

[1] A paper read before the Society of Medical Officers of Health, on Dec. 16th, 1882.

from hospital practice, and I submitted them to special examination, because they seemed to me to be types of that kind of disease in which the bacillus should be present in the sputum. Were I asked to describe these patients, I should say that they were people of both sexes, and of various ages. The youngest of them, a boy, was ten years of age, and the oldest was a man of sixty-five. The majority of them were between twenty and thirty years of age. These persons were not distinguished by the prevalence amongst them of any particular colour of the hair or eyes, nor of any special temperament. They were examples of the ordinary English working-man and woman. Their moral conditions were probably as various as they well could be. Many were evidently hard-working, sober people, leading a life of constant toil. Others could not, with any approach to truth, be described as either sober or hard-working. This last class, I am bound to say, was not largely represented. It is obvious that no sound conclusion can be come to from a consideration of any possible connexion between the occupations in which these people were engaged and the disease from which they suffered. Their number is too limited for any such purpose, and besides that, there were amongst them tradesmen of various kinds in a small way of business, costermongers, a city missionary, watermen engaged on the Thames, sailors, tailors, tailoresses, shoemakers, a policeman, soldiers, railway servants, cabmen, domestic servants of all grades, from men and women who said they were cooks, down to the poor creature who was evidently the drudge of a low-class lodging-house, but who called herself a "general servant." The physical examination of these patients showed them to be, with very few exceptions, more or less emaciated. Even those who formed these exceptions, told of how they had observed that they had lost flesh, and that they felt unfit for work which had formerly been no great trouble to them. All of the sixty-two showed evidence of disease of the lungs; flattening and impaired movement, more or less marked, of the chest walls; dulness at the apex or apices, or elsewhere over the lungs, and compromising these organs to a greater or less extent; râles, varying in kind from the mere click to the metallic ring, as of bubbles bursting in an air-filled cavity. In short, these patients showed, in different degrees, the usual symptoms which we associate with phthisis. Bronchitic signs and the rub of an inflamed pleura, were common occurrences. I wish again to say, that all of these cases were selected because they seemed to me to be unmistakable examples of phthisis. In three of these patients I searched the sputa weekly for the bacillus, but failed to find it until the third week in two instances, and the seventh week in the other case. In one of the two patients in whom the bacilli were not detected until the third week, the organisms, few at first, increased in numbers with wonderful rapidity. My experience of these sixty-two cases inclines me strongly to the belief, that the presence of these organisms in the sputum of any individual is, of itself, sufficient to stamp that person as suffering from a type of disease whose identity is fixed by the presence of the bacillus of tubercle, no matter what other peculiarities may seem to mark the disease.

I venture to think that the prognosis of cases of consumption will, for the future, hinge upon the observation of certain points in connexion with the presence and appearance of the bacillus. I believe that amongst the most important of these are the numbers and the forms in which the organism is found in the sputum. I think that it will soon be established to the satisfaction of all who give attention to the subject that, given a persistence for some weeks of fewness of the bacilli of tubercle in the sputum, and that case will probably run a long course. On the other hand, I think that, given persistence of a large number of bacilli of tubercle in the sputum early in the history of a case, and that case will run a short course, and end in death. Of these cases the most rapidly fatal, in my experience, have been those in which the bacilli were seen grouped in numerous masses throughout the sputum; grouping in masses may be seen in cases in which the bacilli are not very numerous, as well as in cases in which they are present in large numbers. The feature to which I now refer is, that the masses of bacilli are so numerous as to give a characteristic appearance to many of the microscopic fields. I should describe three or four bacilli in a field as indicating the presence of few of these organisms; when their numbers rise to, and persist at, about thirty or more in a field I should say that the bacilli were numerous.

And now as to a part of this subject to which the medical officer of health cannot but attach great importance. Dr. Koch, as he says himself, undertook the work which resulted in his great discovery of the bacillus of tubercle in the interests of the public health. He fills the post of Officer of Public Health, in Berlin. In the record of his researches upon tubercle, he shows how deadly were the effects of sputum containing the bacillus of tubercle when animals were inoculated with it. He allowed the sputum to dry, as it may sometimes be seen drying upon a hospital floor, not always in an out-of-the-way corner. Dr. Koch found tuberculous sputum, dried in this way, to be as surely fatal in its results when an animal was inoculated with it, as had been the case when he inoculated with the bacillus which he had obtained by cultivation of the organism from tuberculous tissue; and those who are familiar with his work will know the full significance of that statement. Now, if Koch's experiments with tubercular sputum are correct, there open out to us probabilities, which have facts for their foundation, concerning the way in which phthisis is spread amongst men. Taking his views as true, we must admit, it seems to me, that the expectoration of a consumptive person probably always contains, in a greater or less amount, a poison of the most virulent kind. Apply this to occurrences which must have been frequent in the experience of every medical man. I cannot better illustrate what I mean than by relating to you an experience of my own. Not long ago I saw a patient, for the first time, who was far advanced in consumption. While I was examining her chest she was seized with a violent fit of coughing. When it had passed off, she asked the nurse to give her a handkerchief. After spitting into a vessel what had been coughed up, she wiped her lips with the handkerchief, and the nurse laid it upon the mantel-shelf. In the course of my visit there was a second but slighter attack of coughing, and after it the patient took another handkerchief from below her pillow and passed it over her lips. Now, here were sources from which, with Koch's work before us, we cannot say that it was impossible for infection to spread. I think that if we believe that Koch has shown us the truth about tubercular sputum, we are bound to regard it as, at least, very possible that, without proper precautions, those two handkerchiefs might have conveyed tubercular disease to other people, for I found, on examination, that this patient's sputum contained bacilli in large numbers. These handkerchiefs might have been thrown into a soiled linen basket containing other articles, and sooner or later they must all have been washed. Again, consumptives often live for years after their disease has declared itself, and how many of these sufferers habitually keep a handkerchief under their pillows? If these things are so, how comes it to pass that tubercular disease does not go very near to exterminating the human race? That is just one of the questions to which we must now search for an answer. That tubercular disease does not readily pass from man to man in the ways now hinted at, is a view which accords with all our present knowledge of the subject. But there is a long distance between the belief that tubercular disease may be propagated by those means, and the belief that such modes of propagation are common. What the truth about this question exactly is we do not yet know. But there are other possible sources of infection, for Koch has demonstrated the presence of the bacillus of tubercle in horses, cattle, sheep, dogs, cats, rats, mice, hens, and other animals with which men come into frequent contact. It is true that we do not know that tubercular disease has ever passed from the lower animals to man; but it is also true that we do not know that it has not so passed. In estimating the worth of Koch's work, we must not forget the fact, that the presence of the tubercle bacillus in certain cases of disease has already been verified by a large number of observers in Europe and in America, and we must, of course, give such a significant fact as this its full weight.

The question, How does phthisis spread amongst mankind? is probably one of the most difficult which medicine has to ask. I venture to think, that in the future we must search for the answer to that question in the light which Koch has shed upon it by his brilliant work.

Deductions.—1. The presence of the bacillus of tubercle in sputum is of itself sufficient to fix the identity of certain cases of disease. 2. The course which such cases will run is indicated by the number and grouping of the bacilli in the sputum. 3. If we accept as true Koch's recent work on

tubercle, we are bound to take precautions against the possible infection of healthy persons by means of sputum containing the bacillus of tubercle.

A SUCCESSFUL CASE OF GASTROSTOMY.[1]

BY F. KING GREEN, F.R.C.S. ENG.,
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THE operation of gastrostomy for cancer of the œsophagus is receiving a new interest from the profession. Simple, bloodless, and easy of performance, yet there was none more fatal, until Howse, recognising the fact that the peritoneum, if placed under favourable circumstances, possesses healing properties second to no other tissue in the body, devised the plan of dividing the operation into two portions, separated by an interval of a few days. The success which has attended this method has rendered his name inseparable from the operation, and I have much pleasure in adding another successful case to those already published.

The patient, a lady aged fifty-six, was sent to me in August last by Dr. Fox of this city. For many years she has suffered periodically from slight dysphagia; these attacks were sometimes months apart. Twelve months before consulting me she first noticed a persistent difficulty in swallowing solids, which slowly increased until, when I saw her, she could only swallow thin liquids, and these with prolonged and painful efforts. Occasionally food regurgitated. A soft œsophageal tube passed for diagnostic purposes met with firm obstruction opposite the cricoid, beyond which no forcible attempt was made to pass it. The tube, on withdrawal, was covered with bright-red blood. Externally there was slight fulness in the lower part of the neck, with induration of thyroid and loss of the natural lateral mobility of the trachea, which, with the thyroid, seemed fixed posteriorly. Tenderness on pressure was revealed, and two or three enlarged and hardened glands existed in this region. A slight inspiratory stridor was perceptible on exertion, and occasionally a remarkable intermission of every fourth beat of the pulse, lasting for an hour at a time. Emaciation was well advanced, and debility kept pace with the emaciation. Enemata of beef and porcine pancreas juice were ordered. A preliminary examination of the abdomen revealed the liver drawn down on the right side to a level with the umbilicus, and quite fixed; in fact, the right hypochondrium was entirely occupied by a solid substance as far as the median line, between which and the left cartilages, however, the abdomen was soft and resonant. The stomach note was normally placed. I operated on September 11th. I found, as anticipated, that the liver was absent to the left of the median line, and the stomach was in immediate relation with the diaphragm, through which I felt with my finger the immense power of the heart. The stomach presented at the wound, the part presenting being the centre of the anterior wall. This I secured by eight catgut sutures, which were made to include half an inch of the apposed peritoneal surfaces. The operation was antiseptic, and methylene was administered. The line of incision was a finger's breadth from the cartilages, and during the operation I found that the peritoneum and fascia transversalis contracted away from the outer margin of the wound, and became well drawn behind the costal margin; this was not the case on the other side. The effect was to give the wound a puckered appearance when completed. In fact the contraction was so powerful that the outer lip of the wound, in spite of the support received from the contiguous costal margin, became inverted, and on a posterior plane to the inner lip. I think if I had to do this operation again I should make the incision nearer the median line. For five days the progress was most satisfactory. Retching occurred once only. The pulse never exceeded 86; the temperature only once reached 99°. On the sixth day I opened the stomach and inserted a small rubber tube. The next day two pints of fluid food were given in divided portions, after which there was no stint of it. No leakage has ever taken place by the side of the tube (which is secured with plaster), for the simple reason that the tendency of the sinus is to contract against the eccentric pressure of the rubber tube, and so no moisture escapes. Twelve days after the operation the patient went out in her carriage. But, with convalescence from the operation, another set of symptoms began to develop. The inspiratory stridor, which was slight and occasional before the operation, became at last persistent and severe; the voice lost, and violent paroxysms of cough, accompanied with a dread of suffocation, left no doubt that the original disease was pressing on the recurrent laryngeal nerves. These symptoms advanced with such rapidity, that on the twenty-third day from the first operation I performed tracheotomy. She again made a rapid recovery, and in three weeks was again out of doors. At present, fifteen weeks from the first operation, her condition may be described as one of comparative comfort. She takes a drive when the weather permits, and her laryngeal symptoms have vanished.

On referring to the medical literature of gastrotomy and gastrostomy I find sixty cases recorded, nearly all of them in THE LANCET, although I believe this does not represent the full number. Of gastrotomy there are eleven cases for the removal of a foreign body from the stomach; of these ten recovered rapidly and one died. The remarkable success which has attended this operation presents a striking contrast to the fatality of gastrostomy when performed for malignant disease; nor have we to look far for the cause of this difference. The eleven operations I have cited were performed on patients who were in possession of good bodily health and vigour. They had not been subjected to a chronic process of starvation, combined with the debilitating influence of a cancerous cachexia; and in strong corroboration of this one has but to glance at the record of seven cases of gastrostomy performed for traumatic stricture of the gullet, produced, in each case, by the swallowing of a corrosive agent. All of these seven patients were under twenty-two years of age, and although in every case more or less exhaustion from chronic starvation was present, yet there was not superadded to this the cancerous cachexia, and, moreover, they had youth on their side. Of these seven cases two died; one on the twelfth, the other on the twenty-eighth day; the report says from inanition, and probably this is correct. The operation in all probability had not been performed sufficiently early. One was by Howse's method; the other by the old (single) operation. Of the five which recovered three were by the old and two by Howse's method; so, if we may judge from so small a number of cases, it would seem that for traumatic stricture the single operation has been as successful as the double. But it is on turning to gastrostomy for malignant disease that we find Howse's operation more successful than the old one. I find that of twenty-two cases of the old operation twenty died within a week, and most of them about the third day; three died within a fortnight, and one lived forty days. Of twenty cases operated on by Howse's method, one is vaguely stated to have died ultimately, nine died within fourteen days, three lived until two months afterwards, one lived five months, one was stated to be going on well on the ninth day, one was discharged from the hospital relieved on the twelfth day, one was going on well on the thirtieth day. Three were living between four and five months after the operation, and to these may be added my own patient. I may state that in reading the reports of these cases, I frequently met with an expression of regret that the operation had not been performed earlier, and so a better chance given to the patient.

[1] Read before the Bath and Bristol Branch of the British Medical Association, Dec. 9th, 1882.

ON BEDSIDE URINARY TESTS.

BY GEO. OLIVER, M.D. LOND., M.R.C.P. LOND.

(*Concluded from p. 140.*)

2. *Potassium ferrocyanide*, when deposited to saturation on filtering paper, produces in conjunction with citric acid paper a reliable work-a-day test for the detection of albumen in urine. In my hands it has proved almost as sensitive as the other test papers here brought forward. The idea of combining the ferrocyanide with citric acid originated with Dr. Pavy,[1] who proposes to introduce them to the profession as a compound pellet. As thus

[1] THE LANCET, vol. ii., 1882, p. 823.

presented, this albumen test will doubtless be compact, portable, cleanly, and efficient. Perhaps, however, some practitioners may prefer to carry in their visiting lists, or otherwise, a leaflet of combined ferrocyanic and citric paper, rather than a bottle or other vehicle enclosing the pellets. The great convenience of this test paper, as of all the others, must appear when it is known that at the bedside no further apparatus is required for the detection of albumen than a teaspoon or a wineglass.

3. *Two new albumen precipitants.*—During the past few weeks I have become acquainted with two precipitants of albumen in urine, which, so far as I know, have not received attention from the profession—at any rate in this country; and I am not aware that either of them has been hitherto applied as a urinary test. But until lately I felt some hesitation in introducing them to professional notice, lest by doing so I should unhappily create greater uncertainty as to the choice of the best and most generally useful albumen precipitant for clinical purposes than at present prevails; for I take it that medical men—at any rate many of the readers of THE LANCET—are just now somewhat perplexed by the rival claims of picric acid, ferrocyanide of potassium, acidulated brine, and potassio-mercuric iodide on the one hand, and by their adhesion to the older methods, in which they have trusted so long, on the other. But favourable observations as to the clinical efficiency of these, what may be styled the latest competitors, and a desire to extend my paper method of analysis to other reagents, which may at least be sometimes usefully employed to determine results of a doubtful character, have decided me to ask my brother practitioners to give these new tests a trial by the side of the others.

(*a*). *Potassio-mercuric iodo-cyanide.*—While working with mercuric cyanide for another purpose, I found that when alone in saturated solution in water it failed to cause a precipitate in albuminous urine, highly acidulated by citric acid; but when mixed with potassium iodide, it threw down the albumen at once as a voluminous white cloud. The iodide and the cyanide combine, and produce a new double mercuric salt ($4KI, HgCy_2$), which crystallises out of solution as beautiful colourless needles. When the solution of this iodo-cyanide is acidified by citric or other acid, a gas (hydrocyanic acid) is liberated, which when completely expelled by heat, leaves the albumen-precipitating power of the solution unimpaired. It would therefore appear that this free hydrocyanic acid takes no part in throwing down the albumen, and that the precipitation must be ascribed to the mercuric iodide combination with potassium iodide. If so, this is but another form of the potassio-mercuric iodide test; but whether it will prove in some way more useful than the latter, I cannot as yet say. It can, however, be readily reduced to paper; and when thus employed, I have always found it as rapid and as sensitive as the other albumen test papers, all of which have hitherto afforded corroboration of its integrity and trustworthiness as an albumen precipitant.

(*b*). *Sodium tungstate* is another delicate test for albumen in urine. According to the Journal of the Chemical Society for March, 1874, it is stated that this salt had been employed by F. L. Sonnenschein as a sensitive blood test, producing with ammonia a deep green colour, even when the blood was so dilute as not to be recognisable by the spectroscope, and as an albumen precipitant in the presence of acetic or phosphoric acid. I suppose this important observation has not attracted the notice of clinical observers, for I am not aware of any references to it in the medical journals in its obvious applications to urinary analysis. On mixing together equal parts of the saturated solutions of the tungstate (one in four) and of citric acid (ten in six), and of water, I obtained an albumen precipitant of great delicacy, rapid in operation, and one moreover, so far as I have ascertained, devoid of all objectionable qualities. When merely dropped into the urine, or used after the manner of Heller, it has always quickly revealed the same minimal proportions of albumen as could only be brought to light by picric acid and by the other tests of equal keenness. But this combination, when evaporated to dryness on filtering paper, did not give results so satisfactory——they required about a minute to develop—as when, after previous acidification of the urine by citric acid, a paper charged with sodium tungstate only was used. The further capacity of this reagent as a detector of blood, at any rate in urine, I am sorry to say I cannot as yet confirm. Perhaps one or other of these albumen test papers will be found equally convenient in the consulting room as in the daily round; but should any practitioner prefer for the former a single solution, which will not stain the fingers, be free from all other objectionable qualities, and will, moreover, be stable and always ready for use, let me specially mention the acidified solution of tungstate, which has given me every satisfaction, and which I now prefer to any other liquid test for home use. Sodium tungstate is procurable as dry, non-deliquescent crystals, and is, moreover, very cheap; for a shilling will purchase as much as can be needful for the detection of albumen during the whole life-time of the busiest practitioner.

Citric acid.—All the foregoing reagents are inoperative as albumen precipitants unless the urine is highly acidified; their application should therefore be preceded or accompanied by a sufficient charge of acid. For this purpose citric acid is easily made available when deposited to saturation on filtering paper, and in this form it has afforded me uniformly satisfactory results with all the albumen test papers.

Compound papers.—Instead of using citric paper separately prior to the reagent paper, it has been combined by a thin layer of rubber with the latter as a single test paper in the case of sodium tungstate and of potassio-mercuric iodide.

4. *Picric acid* can be deposited to saturation on filtering paper, which becomes a most compact and cleanly vehicle, and which, moreover, quickly delivers its charge to water. Repeated observation has shown me that when united with citric acid, as in the test papers, picric acid is divested of all the objections that have been urged against it. A few drops of albuminous urine instantly turns the bright picric solution, extemporaneously prepared from the test paper, into a muddy one, while the addition of more urine does not redissolve the precipitate as when picric acid alone is used. For the detection of small quantities of albumen (less than 1 per cent.) the "contact" method of testing is necessary; then it is best to make the picric solution in a wineglass, to take it up by the medicine dropper, and to glide it gently over the urine in the test tube.

How to use the test papers.—About thirty minims of the urine are taken up by a nipple pipette, or medicine dropper, and transferred to a short test tube, preferably one about two inches in length. If turbid from urates, it should be gently heated. It is now strongly acidified by dropping into it a citric paper, which is shaken about for a few seconds, and may then be withdrawn or allowed to remain. It is not now necessary to ascertain if the urine is sufficiently acid, therefore without delay the test paper selected is allowed to fall into it. A simpler plan, and one which I find answers equally well, is to drop both the citric and the reagent papers into the urine, so that they may fall together to the bottom, and to one side of the test tube. The latter is now inclined, so that the urine may repeatedly and slowly flow over the paper; when, if albumen be present in small or medium quantity, a whitish cloud will very quickly gather above and below it, the more readily detected by intercepting the light by the hand, &c.; while, in striking contrast, the upper part of the urine will remain clear. If, however, the albumen exists in large proportion, it will not usually produce a haze about the paper, but will coagulate on it, and will slowly fall from it in clots. Then, in any case, on shaking the tube the urine will become less or more opaque, according to the amount of albumen present. If, on the other hand, the urine preserves its brightness, or if any turbidity it possessed prior to the introduction of the test paper is not increased, it may be inferred it is free from albumen. But inasmuch as it is just possible, though I have never found it so, it may not have been sufficiently acidified to enable the reagent to throw down the albumen, it is advisable to dispose of this suspicion by adding another citric paper; when, if no precipitation occurs, albumen is absent. The whole proceeding, of course, takes up very much less time than that occupied in reading this description of it. The reaction is practically instantaneous when the urine has been freely acidified prior to the introduction of the test paper. It is, however, not so quickly obtained, though the delay only amounts to a few seconds, when, without previous acidification, the single compound test papers are used. The convenience and simplicity of the testing for albumen by these combined papers are very great, for the practitioner only requires to carry them in his visiting list or pocket book and to drop one into a little urine in a teaspoon or wineglass, when, after stirring it about for a second or two, the opacity of precipitated albumen will appear. Those who prefer to develop

a zone of precipitation along the plane of contact of a test solution and the urine, can do so by aid of these papers. A test tube and a wineglass are required. Into the latter the reagent paper rolled up is placed with about fifteen minims of water, and, without shaking, is set aside, while a similar quantity of urine is put into the test tube with citric paper. After withdrawing the latter, the reagent, now in solution, is taken up by the pipette and is allowed to trickle down the side of the tube, in which it will collect at the bottom. After developing the ring, the two fluids may be shaken together, when the albumen will be more largely precipitated as a milky cloud.

The keeping power of the test papers. — None of the papers have been bottled or kept from the air and light during several weeks; on the other hand, they have been purposely exposed without covering. Still I cannot discover the least deterioration of their power to precipitate albumen or any change of colour or of other physical quality. From the first I rather suspected the mercuric papers might not stand the exposure of daily work for any length of time; but I am now of opinion I over-estimated, if I did not misjudge, this possible source of failure. I am surprised they do not partake more than they appear to do of the deliquescence of the potassium iodide, which is merged in the new definite salts with which they are charged; for it was only after free exposure in a dampish room without a fire, a trial to which no delicate test should reasonably be submitted, that they became slightly limp, but even then without showing any diminution of their albumen-precipitating property. So far I can assert I have seen nothing to cause me to doubt the stability of even these reagents employed as test-papers, and they are the only members of this series of albumen precipitants which *a priori* might be thought at all susceptible to the deleterious effects of atmospheric influences. Though referring to a test touching another subject, I may say that my cuprie papers, designed for the qualitative and quantitative estimation of sugar, and made over two months ago, are to-day as good and as sensitive as they were when freshly prepared.

In a leader of the *Medical Times and Gazette* for 1874[2] will be found the following passage, which tersely expresses the opinion of the writer as to the trustworthiness and adaptability to the requirements of medical work of the tests for the detection of albumen as then known: "The reader who has followed us so far will, we think, agree with us that none of the common tests are quite satisfactory, and that we still lack one which shall be cleanly, portable, cheap, and certain." I leave it for my readers to decide whether this remark still holds good.

In concluding these notes on the qualitative tests for albumen, I must state my consciousness of the imperfection of isolated observation, however faithfully recorded, and I would fain seek the scrutiny of many eyes, to correct if needful, or to more truthfully limit, any of the matters here advanced. With this object in view I have asked Mr. Hawksley, 357, Oxford-street, W., to place a limited supply of these test papers at the disposal of the profession, and to furnish gratuitously the series to anyone who desires to put them to a careful trial, and who will kindly communicate the results of their observations to me or to THE LANCET. In the meantime I hope that favourable evidence will not be long forthcoming to prove, as I have found, how satisfactorily they meet the requirements of daily work at the bedside, and to indicate which of them should be regarded as the best workable tests.

Harrogate.

[2] Vol. ii., p. 366.

THE annual meeting of the Weymouth Royal Hospital and Dispensary was held on the 18th ult. The number of out-patients was 182 in excess of the highest number ever recorded in the annals of the charity. The Hospital Sunday collection had increased from £182 to £203, and the amount owed by the institution was less than at the beginning of last year. The chairman paid a high tribute to the medical officers for their services.

DONATIONS TO HOSPITALS.—The funds of King's College Hospital and the Middlesex Hospital have received a welcome addition of £1000 each by the benevolence of a donor signing himself "T. W. R.," who has also given £500 to the Brompton Consumption Hospital, and to the British Home for Incurables.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

CASE OF PERNICIOUS ANÆMIA.

(Under the care of Dr. CARRINGTON.)

FOR the following notes we are indebted to Mr. E. Penny, M.B. Lond., house-physician.

Heinrich L——, aged twenty-one, a Norwegian sailor, was admitted on March 2nd, 1882. As he spoke no English, a clear history could not be obtained; but it appeared that he had been at Wilmington, Mexico, in the winter, and had had ague there.

On admission he was very anæmic, and became rapidly worse. Towards the end of April he presented the following symptoms:—Extreme pallor and smoothness of the whole cutaneous surface; mucous membrane of the mouth and eyelids almost colourless; rapid and excitable cardiac action, often causing much distress by the violence of the beating; no distinct cardiac murmur, but a slight systolic roughness at base; respiration on the slightest exertion deep and hurried; a few moist sounds generally through the lungs; subject to syncopic attacks, during which the pallor became more intense, and the breathing very distressed. He complained frequently of pain in the epigastrium, while extreme tenderness with slight swelling of the lower part of the right thigh came on. There was also very slight œdema about the ankles; hæmorrhage into the retinæ took place, while the blood showed extreme diminution of red corpuscles without increase of white ones, the former being of very abnormal shapes and sizes. Examination of the patient caused much distress, and often alarming attacks of syncope towards the close of life, so that it was impossible to investigate the case very closely. Although he seemed generally tender and resented disturbance in any way, no distinct tenderness over the bones was made out.

On April 29th Dr. Stephen Mackenzie examined the patient, the following being the result of his observations. Numerous superficial retinal hæmorrhages, some flame-shaped, some fan-shaped, and others round, and a few white patches; discs swollen; edges indistinct. Microscopic examination of the blood showed the red corpuscles much reduced in number, variable in shape, some tailed, some elongated, and others very small; they showed no tendency to form rouleaux, though congregating in clusters; the smaller corpuscles were not deeper in colour than the larger normal ones; no granular corpuscles.

During the patient's residence in hospital his temperature varied generally between normal and 100°F., being often lower in the evening than in the morning, and rising at times as high as 101°. Diarrhœa occasionally came on. He took nourishment well the whole time. From March 22nd to April 19th he took, every four hours during the day, one-thirty-second of a grain of arsenious acid, combined with ten grains of sulphate of quinine.

On April 19th the arsenic was raised to one-twenty-fourth of a grain in a dose, but as very troublesome vomiting followed, the medicine was discontinued on April 22nd. Some days before death the patient complained of pain in the left chest, which was followed by slight effusion in the pleural cavity; his breathlessness became more marked, so that he could not rest in the recumbent posture; vomiting returned about the same time.

The patient died on May 4th after a syncopic attack, in which the breathing became extremely distressed and rapid. With the exception of a single attack of epistaxis, no loss of blood took place during his stay in hospital.

Necropsy.—The body was not at all wasted; there was much fat in the abdominal walls and omentum. The heart was flabby and relaxed, containing clots, uniformly of a dark-amber colour. On section, the inner third of the cardiac wall was very pale, while the outer two-thirds

showed thickly scattered ecchymoses. The pericardium contained three-quarters of a pint of clear fluid; there were some ecchymoses beneath the visceral layer of membrane. A considerable amount of clear effusion was found in both pleural cavities, and a patch of recent lymph at the left base. The liver was pale; spleen soft, but not enlarged; kidneys pale, showing points of ecchymosis here and there. The cancellous structure of the sternum and vertebræ seemed normal. The swelling of the thigh was due to œdema, apparently caused by venous thrombosis.

ADDENBROOKE'S HOSPITAL CAMBRIDGE.

OBSTRUCTION OF THE ABDOMINAL AORTA BY CLOT; GANGRENE OF LEGS; DEATH; POST-MORTEM EXAMINATION; REMARKS.

FOR the following notes we are indebted to Mr. A. M. Sheild, house-surgeon.

Mary F——, aged thirty-six, married, was admitted on Nov. 1st, 1882. She was a spare, pale, anxious-looking little woman, of a patient, quiet, disposition. Pulse 136, weak and irregular, temperature 100°, tongue red and glazed, bowels confined, urine acid, lithatic, no sugar, a little albumen. Action of heart irregular but no bruit to be heard. Skin covered with acid, sour-smelling sweat. Abdomen discoloured from the use of mustard plasters. The right foot and lower two-thirds of the leg were gangrenous. The skin had lost its elasticity, was dusky red and mottled with purple. Over the heel and on the sole of the foot were sanious black bullæ, the toes and anterior part of the dorsum of the foot were dry, shrunken, and the colour of tallow, contrasting with the black hue of the matrices of the nails. There was absolute loss of motion and sensation in the affected parts, which felt cold and dead. The parts near the upper limit of the gangrenous process were very painful, but there was no emphysematous crackling, or evidence of rapid advance of necrotic action. The left foot was cold and numb, the toes were a little dusky, and sensation was greatly impaired. She could move the leg, however, freely. No trace of a pulse could be felt in either femoral artery. The abdominal aorta pulsated violently to a little below the umbilicus; here all pulsation ceased. A slight bruit could be heard with the stethoscope, about two inches above the umbilicus, over the aorta, but there was no evident dilatation of the vessel. No bruit could be heard over the thoracic aorta. There was some abdominal tenderness, especially in the right iliac fossa and left hypochondriac region.

The following history was obtained:—The patient had rheumatic fever at the age of seventeen; ever since then has been "a martyr to the rheumatics." Has had four children and two miscarriages. The last child was born in May; she had an easy labour, and was soon well and about again. There was no history of syphilis. For the last fourteen days she has had to keep her bed with pains in the body and down the legs. On the morning of Oct. 29th she found her right foot very painful and numb; the left foot also suffered, but not to the same degree. Declares that at that time she could move both her limbs easily. From this date to the time of admission she has been getting steadily worse.—Nov. 2nd: She slept badly. Pulse 130; temperature 101°; other conditions much the same. Takes her nourishment well. Bowels freely open.—4th: The gangrene is extending slowly on the right side; it has now reached the knee. The left foot is now evidently gangrenous. Pulse 130; temperature 101°.—6th: Had a bad night; this morning is apathetic, and very drowsy. Pulse 140; temperature 104°. She died quietly at about 11 A.M.

Treatment.—This merely consisted in applying warmth to the affected limbs, supporting the strength by nutritious diet, and giving small doses of opium at night to alleviate the pain.

Necropsy, about twenty hours after death.—The heart and lungs were fairly normal. There was a slight fibrous thickening of the mitral valve, but no granulations or ante-mortem clot. On following down the aorta these curious appearances presented themselves: The arch of the aorta was to the touch and naked eye normal. On the posterior part of the thoracic aorta, just above the diaphragm, was a small, tongue-shaped, firm, pinkish, fibrinous clot. This was quite adherent to the wall of the vessel, which in this situation presented a wheal-like elevation, fibroid to the touch, and having the endothelial coat over it roughened and altered. A little lower down was another small patch of disease; this was calcareous, and seemed of older date than the one first mentioned. The cœliac axis and its main branches were blocked by firm, adherent, fibrinous, somewhat stratified clot. This projected a little into the aorta, which here again presented a thickened opaque condition of its lining membrane, feeling in one spot gritty and calcareous. Just above its bifurcation the aortic tube was completely blocked by a firm clot, having its conical end of a gelatinous consistence and pink colour, and projecting some little way upwards. The clot quite filled both common iliac arteries; the internal iliac and external iliac vessels were also completely obstructed. The whole clot was stratified, and very adherent to the intima of the implicated vessels. Near the junction of the right common and internal iliac vessels it was most decolourised and firm, greyish-white, and adherent, as though this was the oldest part of it. The vessels of the brain seemed healthy. There was nothing worthy of note in stomach or intestines. The right kidney was small, and there was a slight puckered cicatrix on its surface, to which the capsule was adherent. The spleen was enlarged, its capsule thickened, and it presented some pale wedge-shaped patches near the surface, as though the result of old embolic processes. The liver was enlarged slightly; there was one small wedge-shaped patch of evidently old origin on its surface.

Remarks.—Complete obstruction of the abdominal aorta by clot is sufficiently interesting to justify such a case being fully recorded. A number of such cases may be found related in Sir James Simpson's works, dependent, however, upon the puerperal state. Cases are also recorded in Vol. xxiii. of the Transactions of the Pathological Society; one of them bears in its results a close resemblance to the one now related, the aortic tube being blocked close up to the origin of the renal vessels. The chief point of interest in the present case is the nature of the arterial degeneration, which evidently caused the blood to clot. It was unlike ordinary atheroma in the absence of distinct implication of the aortic arch, the age of the patient, and the evident mischief to the endothelial layer of the inner coat. The primary clot was, doubtless, the small one upon the wall of the thoracic aorta; here the endothelium being altered and abnormal, caused the blood, which must have had a preternatural tendency to fibrinous excess, to coagulate upon it. The cœliac axis seems next to have got plugged, and from the conical projecting end of the coagulum that filled it, another clot got washed away by the impact of the powerful stream of blood in the aorta into the right common iliac vessel. Here it lodged at the bifurcation of the common iliac artery into its external and internal divisions, completely obstructing it, and also causing thrombosis to take place, and so secondarily block both the left common iliac artery and the aorta itself. The oldest portion of clot below was certainly in the right iliac vessel, and the clinical history of severe abdominal pain, followed by sudden gangrene—first of the right, then of the left lower limb—would support the view above advanced. The origin of the clot and the primary seat of its arrival in the iliac vessels are very interesting and open to several explanations. It is also worthy of remark that but slight indications of mischief showed themselves in the great abdominal viscera, though the great artery, the cœliac axis, was quite firmly plugged.

BARROW HOSPITAL.

CASE OF COMPOUND FRACTURE OF SKULL WITHOUT HEAD SYMPTOMS.

(Under the care of Mr. WILLIAMS.)

FOR the following notes we are indebted to Mr. R. Heelis, house-surgeon.

Robert A——, aged fifteen, was admitted on Oct. 20th, 1882. Three hours before admission he was struck on the right forehead by a tippling truck, in rapid motion, and thrown some distance. He was insensible for about five minutes, and then got up and went on with his work. He applied to the hospital at midday as the wound seemed serious.

On admission there was a small oblique wound one inch above the upper and outer angle of the right orbit extending to the bone, which was bare for about half an inch beneath the lower edge of the wound. This bare bone was bounded above by a sharp, free edge of crescentic shape, which could be felt through the skin, its extremities being above and

beyond the ends of the external wound; the bone above this was depressed. The patient walked steadily and was quite sensible; the skin was warm and pupils equal and dilated. He was put to bed, and the wound syringed out with carbolic lotion, one in ten, and dressed with dry salicylic silk. The dressing was changed on the 22nd, 29th, and 31st. On the 29th the wound was scabbed over, and on the 31st only a small granulating sore was left, and he went out on that day. During this time he had no headache or delirium and slept well. His temperature on the first and second days was 99·2° and 99°, afterwards normal. The pulse was 84 on the same days and regular; afterwards it was less frequent.

When seen by Mr. Williams a few days ago the edge of bone could still be felt. He suffers from headache occasionally when at work.

CASHEL UNION HOSPITAL.

CASES OF THORACENTESIS.

(Under the care of Dr. LAFFAN.)

CASE 1.—M. D——, aged twenty-six years, a female servant, was admitted in April, 1880, with acute pleuritis on the right side, and bronchitis of the left. The right side of the thorax was three inches larger than the left. Pulse 120; respiration 60. On April 28th dyspnœa became urgent. Thoracentesis was performed, and fifty-six ounces of serum were withdrawn. The pulse at once fell to 80, and the respiration to 30. The notes state that on May 1st the pulse was 116, respiration 36, and the temperature 105·8°, and that the right lung, where previously no sounds were to be heard, was now like the left, the seat of universal râles. The patient ultimately became quite well.

CASE 2.—W. D——, aged five years, was seized with pleuritis of the left side on June 10th, 1882. He came under observation on August 12th, at which time the entire left side was dull, and the apex of the heart-beat between the fourth and fifth right ribs. The patient's general condition was at the lowest ebb. Paracentesis was performed on that day, and about twelve ounces of healthy pus were removed. A piece of lint was inserted into the wound, and removed from day to day to allow free exit for the discharge, and small doses of coca were given internally. A few days afterwards, on August 24th, the pleura was injected with a solution of tincture of iodine. The next day, and for some days afterwards, he was seized with cough and symptoms of extreme debility, which seemed connected with the infection. He, however, gradually improved; the bronchitis continued. A small purulent discharge persisted from the pleura, and coca, syrup of iron, and supporting treatment were administered till October 12th, when he expectorated per mouth for three successive days a large quantity of pus, similar to that which came from the side, after which all cough left him. The discharge from the pleura ceased, and he made more rapid strides towards health and strength.

On December 7th there was a mere moisture from the wound. His health was perfect, and the chest signs were normal. The wound was to be closed. The girth of the chest on the right side was 16 in., and on the left 15½ in. This patient was reduced to the last stage of asthenia, and his recovery was something surprising, even having regard to the greater chance of patients of his age. The sudden and great expectoration appears to be due to perforation of the lung; no stethoscopic signs were detected, and the fact that this at least did no harm is in keeping with the records of similar occurrences.

CASE 3.—D. N——, a female aged twenty-three years, came under observation on July 10th last. Her illness dated from February 14th preceding. On admission the left side of the chest was completely dull. It was opened on the 11th between the sixth and seventh ribs; with the aid of the aspirator thirty ounces of serum were drawn off. She was able to move about in four days. On December 7th her state was as follows. The left side of the chest was normal on percussion in front, and slightly deficient in tone behind. The circumference was 16 in. on the right side, and 15½ in. on the left. There was no signs of the presence of any fluid. The appetite, sleep, menses, and all other functions were normal.

CASE 4.—J. S——, aged twenty-five years, came under observation in 1880, for effusion in the left pleura. The dulness was universal, and the urgency of the symptoms called, as in the previous cases, for operation. The left pleura was opened in the usual place, and about sixty ounces of serum were withdrawn by a small needle of the aspirator. Some fluid was again effused, but this was absorbed, and the patient recovered. Some of the patient's brothers had died of phthisis, but he continued well.

CASE 5.—T. D——, aged twenty-eight years, was first seen on the 1st of June, 1882. The entire left pleura was filled with fluid; the apex of the heart beat between fifth and sixth right ribs. There was a history of his having suffered for five years from the disease. He had been under the care of three physicians successively, who took the case for phthisis. The chest was opened with a large needle of the aspirator between the eighth and ninth ribs, and one inch to the left of axillary line. Three gallons of a serous-looking fluid were withdrawn. The patient made an uninterrupted recovery, and now pursues the active duties of a cattle-dealer, to which he has transferred his services from his former and less onerous post of land steward. It is intended to publish the case *in extenso* on account of many points of interest.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

The Period of Infectiveness of Scarlet Fever.

THE ordinary meeting of the Society was held on Jan. 26th, Dr. Andrew Clark, President, occupying the chair for the first time since his election. There was a numerous attendance, and the proceedings commenced by the delivery of an earnest, eloquent, and spirited address by the President, who, on the motion of Dr. Glover, seconded by Dr. Day, was formally thanked for his address and requested to have it published in the Transactions of the Society. The rest of the evening was occupied by a paper by Dr. Longhurst, which attempted to prove that scarlet fever was infective in the pre-eruptive stage, but not in the stage of desquamation. It was generally felt, however, that his facts were too few and inconclusive to warrant a deduction which, as more than one speaker emphatically pointed out, was a dangerous one to advance. An interesting case, believed by the exhibitor to be an early condition of osteitis deformans, and showing also the remarkable state described as "spondylitis deformans," was exhibited by Dr. Lediard of Carlisle. Cases of scleroderma were shown by Dr. S. West and Dr. Goodhart respectively. Mr. Shuter exhibited a patient upon whom he had performed subperiosteal amputation at the hip-joint.

Dr. LONGHURST read a paper on the Activity of the Infective Power of the Poison of Scarlet Fever during the Pre-eruptive Stage of the Disease. He said that in a short paper on the Infection of Scarlet Fever, in THE LANCET of July, 1877, he expressed a belief that the period of greatest activity of the fever poison was in the early stage of the disease. Extended observation has strengthened that belief, and it is borne out in the cases reported, which seem to encourage a line of investigation in connexion with the study of acute specific diseases advocated by the late Dr. Murchison in a paper on the Period of Incubation of Scarlet Fever, and the probability that they may be transmitted even during the stage of incubation. Case 1 supports such view, and forcibly demonstrates that the fever poison is not absorbed by, nor developed in, all persons with the same rapidity and activity, and that possibly even during the stage of incubation the poison may be passed on from one member of a family to another, the latest case having little, if any, direct relation to the first, but being due to the further development of the poison through fresh systems. Cases 2, 3, and 4 all point to the activity of the fever poison in the very earliest stage, whilst Case 4 is especially interesting as proving that the long isolation and confinement still enforced by some are not always necessary. It is most important that a belief in the activity of the infective power of the fever poison during the very earliest stage, possibly also during that of incubation, should be generally accepted; for then, instead of risking the spread of the disease by scattering at once the members of a family, forming new and fresh centres of infection, ought we not rather to be content with isolating the sufferer in his own house, or removal to the hospital, according to circumstances, and with rigidly adopting all sanitary precautions?

If also we admit the activity of the fever poison to be in the earliest stage rather than during the stage of desquamation, as still held by some, then we could feel that the long period of isolation and confinement of two or three months, as still in the opinion of many is deemed necessary, may be safely shortened, to the very great relief of both the sufferer and his family.—Dr. BROADBENT said that before evidence of this kind could be accepted of the contagious power of the fever in the pre-eruptive stage, there must be proof that the other children were not exposed to the same source of infection as the first was; but amongst a number of children this exposure to the same source of contagion was very likely to occur. Until we have cases occurring alone, and exposed only to a case in the pre-eruptive stage, the point could not be proved. His own experience was that even where two children slept in the same bed until the eruption came out on one of them the other might escape, and that some children were more susceptible to the poison than others. It was different with regard to measles, which, he had no doubt, could be communicated in the preliminary catarral stage. He had seen both in measles and mumps children sent away from a house where these diseases occurred going to a family at a distance and communicating the disease, although they did not present the symptoms until after their arrival. No such exposure in the early stage of scarlet fever sufficed to transmit the disease. He would agree with the author as to the danger of sending away other children as soon as one case occurred. At the Fever Hospital, although every possible precaution is taken to disinfect the clothing and persons of children on being sent home, even at long intervals of six or eight weeks, others have been infected.—Dr. B. O'CONNOR remarked that it would have been interesting if the infection in the cases related had been traced to some articles of diet, as happened in the Kensington epidemic a few years ago.—Dr. GILBART SMITH said an important detail is the length of the period of incubation. In an orphanage with which he was acquainted a child returned from a stay in London, and next day had a scarlet fever rash. The same nurse attended to the other children, who next day had sore-throat, showing that incubation in these cases occurred within twenty-four hours. Dr. Smith, of the Fever Hospital, had informed him that if the disease had not appeared within seventy-five hours of exposure it would as a rule not appear at all.—Dr. GLOVER thought the Society should by no means accept the conclusions of the author, because of their grave public importance. Isolation of cases was a common rule, and anything tending to destroy faith in it would be disastrous, for in the later stages scarlet fever is very seriously infectious. At this very time the author of the paper would send patients away to communicate the disease far and wide.—Mr. JESSETT said that the most important part of the paper was the very early stage at which the author sent patients out of town. It was far too soon to send them away at the end of three weeks. During the stage of peeling the disease is the most infectious. He mentioned a case where contagion occurred through a patient going to a calico ball, thirty or forty people being infected. He could confirm what had been said by Dr. Broadbent as to the infectiousness of measles in the catarrhal stage.—Dr. EASTES said that in 1866 he had scarlet fever, and a brother came to see him and contracted the disease, returning to school, where fourteen other boys slept in the same dormitory. The rash appeared next day, and he was isolated. Not one of the other boys took it. At a school in the country a child was taken ill with others, and all precautions were observed. At the end of six weeks she went home, and the other children in her house became ill.—Dr. BLACK gave an instance of infection of measles in the catarrhal stage. A pupil of his one day was suffering from severe catarrh, and next day presented the rash of measles. A short time after (fourteen days) his own two children developed measles, apparently from his having himself conveyed the disease from his pupil.—Dr. DUCKWORTH said there was much misunderstanding as to the period at which scarlet fever cases should be sent away, and a rule was required which should be applicable in all cases. His own plan was that the patient should be kept under the blanket for at least three weeks, and confined to his room for eight or ten days later; and if this were inflexibly carried out we should hear very little of renal complications and other troubles. It was a sound, practical, working rule which should be enforced even in the mildest cases.—The PRESIDENT said there was no question of the importance of the subject. The writer had not proved his position, for he had failed to show that the children were not exposed to the action of the same poison. As to the time at which a patient should be removed, he held there was no reasonable safety within six weeks; no perfect safety within seven. Some years ago he had scarlet fever in his own house and was called to Scotland. He declined to go, but the idea of any risk was ridiculed, and he was again urgently summoned. He waited for six weeks and went, when, within a week of his arrival, scarlet fever broke out in the place.—Dr. LONGHURST, in reply, said he had expected severe criticism. He admitted that he had been unable satisfactorily to trace the source of infection in the cases, and that all might have been infected from the same source; but as all occurred within a week, it proved that there is infectivity in an early period of the disease; and his main contention was, that infection is during the early stage rather than in the stage of desquamation. In estimating the probable period of incubation, one was apt to be misled by infection from clothes and surroundings.

MEDICAL SOCIETY OF LONDON.

Volvulus of the Ileum treated by Abdominal Section.—Abdominal Pulsation.

A MEETING of this Society was held on Jan. 15th, Mr. F. Mason, President, in the chair.

Dr. J. K. FOWLER read the notes of a case of Intestinal Obstruction from Volvulus of the Ileum treated by Abdominal Section, and offered some suggestions as to the mode of performing the operation. The patient was a man, aged forty, who was admitted into the Middlesex Hospital under Dr. Fowler's care on Aug. 7th, 1882, with a history of acute obstruction of the bowels of four days' duration. An enema was administered, and by auscultation of the colon the fluid was found to pass as far as the ileo-cæcal orifice. Attention was called to this important aid to diagnosis between obstruction of the large and small intestine, and some experiments were described which tended to confirm the generally received idea that under normal circumstances the ileo-cæcal valve is competent. Abdominal section was at once performed by Mr. Hulke, and a volvulus of the ileum found and untwisted. The patient was much relieved by the operation, and the bowels were opened freely three times subsequently. Death took place three days afterwards from cardiac failure and hypostatic pneumonia. At the post-mortem examination a portion of the ileum with a long mesentery was found somewhat congested, the peritoneum generally was normal and the wound healthy. Special stress was laid upon the advisability of operating early in cases of internal strangulation of the small intestine, and attention was directed to the following mode of proceeding, at the author's suggestion, after the abdomen had been opened. The finger was passed deeply down into the pelvis, where a portion of collapsed small intestine was found; this was withdrawn and carefully followed until the obstruction was reached. It was laid down as an absolute rule that in the operation of laparotomy the distended bowel should only be manipulated in case the surgeon after a careful search had failed to find the collapsed intestine. The following advantages were claimed for this method of operation: (1) That the collapsed bowel can be examined with far greater ease and in much less time than an equal length of distended intestine; (2) that a considerable length may, if necessary, be exposed at one time, without any difficulty arising, when it is desired to return it into the abdomen; (3) that the collapsed intestine never leads to the duodenum—a matter of some importance; (4) that the danger from peritonitis from exposure of contracted bowel is very slight; and (5) that rupture during its manipulation is practically impossible. It was suggested for the following reasons that in all cases of obstruction of the small intestine the contracted portion would be found, as in this case, lying in the pelvis: (1) The tympanitic abdomen shows that distended bowel is on the surface, as would be expected from its diminished specific weight; (2) that in making autopsies the author had noticed that if the upper portion of the small intestine be distended, the contracted lower end is always seen lying behind the distended portion, low down in the pelvis. The explanation offered was that during the violent and continued peristalsis, and gradual distension of the bowel above the obstruction, the smaller and less active portion of bowel below is forced into the pelvis, which is, besides, too small to hold a distended loop. Two cases were mentioned which

had lately been operated on at the Middlesex Hospital, in which at the autopsy a second band had been found close to one divided during the operation; the result had not in either case been influenced by these bands having escaped notice. —The PRESIDENT did not think a small incision in the abdominal wall a wise practice, and quoted a case of his in favour of early interference.—Mr. BRYANT trusted that in future surgical aid would be invoked at an earlier period than is now customary. A volvulus was equivalent to an internal hernia, and should be subjected to the same surgical rules of early operation. Injections as a means of diagnosis would be applicable only in a small proportion of cases; and as a method of treatment, in intussusception excepted, they were of very little use. His own experience showed them to be harmful, sometimes causing rupture of bowel and fatal collapse. He nevertheless thought that Dr. Fowler's method of diagnosis in this case was ingenious and trustworthy, and in early stages might have good results. He approved the author's criticisms of the operation, and argued that the collapsed intestine should be sought for on the right side of the brim of the pelvis. He reiterated his belief in the danger of puncture of distended bowel, and had seen fæcal extravasation follow puncture in three cases.—Mr. EDMUND OWEN compared the nature of acute internal obstruction to that kind of external hernia in which a little knuckle of small intestine was tightly strangulated; these were the very cases in which a cutting operation was urgently required. The chief signs of the acute obstruction are umbilical pain, sickness, and collapse. The co-existence of alvine evacuations was of no material import. Copious evacuations should not be employed with a view to overcoming acute obstruction.—Dr. COUPLAND thought that operative interference was often postponed on account of the late stage at which cases were sent into hospital. In one case of his, after operative interference had been invoked, spontaneous relief occurred before the surgeon arrived. But he would say that he had never yet seen recovery after operation in acute internal obstruction.—Dr. GREEN considered that the question of operation rested on diagnosis. If a physician were satisfied of obstruction in the small intestine, he would not hesitate to invoke surgical interference. Was it possible to distinguish between simple volvulus and serious obstruction.—Mr. WALSHAM agreed with Dr. Green on the difficulty of exact diagnosis, and the desirability of some better rule on the subject. The diagnosis between obstruction in the large and small intestine was not quite satisfactory, and he thought Dr. Fowler's plan would prove of value. He also recommended the insertion of the hand into the rectum, which, if practised with proper precaution, involved no risk. He thought it possible to tell the direction of the exposed intestine from noting the direction of the mesentery. He had succeeded in returning coils of intestine into the abdomen by making firm pressure with a sponge on the whole mass.—Dr. FOWLER replied, and stated that it was impossible to distinguish between those cases of volvulus which would untwist spontaneously and those which would not.

Dr. WILTSHIRE then read a paper on Abdominal Pulsation. He pointed out that abdominal pulsation of an abnormal kind occurs in males as well as in females, but more frequently in the latter. In males it may arise from various causes, but aneurism is much more probable than in females. It very rarely occurs in girls or young women before childbearing, and when it does usually arises from impoverished blood, but may be due to tumours, malignant or benign, or cardiac disease. It becomes more common towards the change of life and afterwards, and may then arise from various causes, which may be grouped as follows:—*Affections of the vascular system:* (1) Cardiac lesions—e.g., aortic regurgitation; (2) arterial lesions—degenerative changes, such as calcification, atheroma, &c., sometimes secondary to renal disease, aneurism, vaso-motor neuroses, peripheral spasm, pressure on the aorta, or its branches, by tumours of various kinds, fæces, abscesses, effusions; (3) blood-changes—anæmia, hydræmia, chlorosis, deficiency of albumen, or various cachectic blood states arising from excessive loss or otherwise. *Extra-vascular affections:* Pulsatile tumours of the liver, spleen, stomach, omentum, mesentery, kidneys, intestinal tract or other tissues in the abdominal cavity, notably if malignant; tumours lying over the aorta, as horse-shoe kidney, movable kidneys, the pancreas, purulent collections, hydatids, sarcomata, fæcal collections, mesenteric cysts; neurotic affections, as from fright, anxiety, grief, shock, disappointment; Addison's disease; climacteric disorder, nervous and vascular, accompanying catamenial suppression. *Diagnosis:* Careful physical examination of abdomen, pelvis, and thorax. Inquiry into general state, particularly of blood. *Treatment:* Dependent upon cause, to discover which no effort is to be spared. Vascular sedatives generally helpful, as potassium iodide, the bromides, &c. Blood impoverishment to be amended by iron and liberal diet. Laxatives useful—e.g., an ounce of the compound decoction of aloes and five grains of iodide of potassium, three times a day.—The PRESIDENT had found good results from the use of laxatives. —Dr. THOROWGOOD had seen a remarkable case related by the author, which had been under observation for many years. He could testify to the good effect of iodide of potassium in that case.—Dr. GREEN had seen good effects from bromide of potassium and iron. He thought only the "neurotic" form of pulsation was unaccompanied by distinct symptoms.—Dr. EWART had lately under his care a man, aged thirty-five, in whom abdominal pulsation of this kind occurred. The patient was dyspeptic, and had not noticed the pulsation till his medical attendant discovered it, and from that time he imagined various symptoms in connexion with it.—Dr. OWEN had also seen a case of the kind in a male subject.—Dr. WILTSHIRE briefly replied. He had seen cases illustrating all the varieties of pulsation mentioned in his paper. Many of the cases were dyspeptic and suffered from constipation. He had seen the pulsation accompany aortic incompetence and Bright's disease.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Colloid Cancer of the Peritoneum.—Post-hemiplegic Hemichorea.—Recurrent Fibroid.—Calculus in the Ureter.

THE usual monthly meeting of the above Society was held on January 5th, Mr. Frederick Lawrence in the chair.

Dr. THOROWGOOD exhibited a patient believed to be suffering from Malignant Disease of the Abdomen. On examination the abdomen was much distended. Slight evidence of localised fluctuation could be detected in the flanks, and he said that when in St. Mary's Hospital last August (the patient was admitted to the West London Hospital on December 13th, 1882), he was tapped by order of Dr. Handfield Jones in the left flank, from which serous fluid was drawn. He is now losing flesh, has a quiet pulse, clean tongue, does not vomit, heart and lungs act normally, and he appears healthy. On feeling the abdomen a hard mass is found below the ensiform cartilage, about two inches by two inches in size; doubtful if this mass moves much in respiration; below this comes a zone of resonance, then across abdomen can be traced at level of umbilicus a chain of hard, tender, irregular masses. Liver dulness somewhat increases upwards. Twenty years ago he came home from India invalided for dysentery, and ten years ago he had slight coughing up of blood. With these exceptions his health has been good. Present illness commenced with enlargement of abdomen five weeks before the admission into St. Mary's Hospital on August 21st, 1882. Paracentesis abdominis was performed, and after that liver dulness extended eight fingers' breadth upwards in right chest. No lumps were felt in the abdomen at this time, but a hard mass below the xiphoid cartilage was believed to be the left lobe of the liver. The urine contained lithates, but no albumen. The case was set down as cirrhosis with ascites, and on Nov. 2nd the patient left St. Mary's Hospital. He says that while in that hospital he had a dose given him which brought away three yards of tapeworm, but not the head of the parasite. Before tapping his abdomen measured 38½ in. at level of umbilicus. Present measurement 34 in. Dr. Thorowgood believed the disease from the first was colloid cancer. At present the functions of the stomach and intestines are not much affected, but the patient loses flesh rapidly, and the prognosis was, in his opinion, anything but favourable. Saline purgatives were given him to relieve congestion and oppression, and at night extract of conium to relieve pain.—Dr. SCHACHT referred to a case in which a mass could be felt on deep palpation in the hypogastric region which was diagnosed as malignant, and proved at post mortem to be a mass of encephaloid cancer.—Dr. THUDICHUM asked for a definition of "colloid cancer;" he knew what "colloid" meant, and he knew what "cancer" meant, but he did not understand the combination of terms. As the case under notice was of long standing it was very in-

teresting and important, but he was not clear as to the possibility of diagnosing abdominal cancer in the living human being. Then as to treatment: he could not understand why extract of conium was administered as so little was known of its influence. He questioned whether it contained any alkaloid, and, indeed, whether it had any medical effect whatever. It was not chemically definable.—Dr. POPE said that he knew a case of an old man who had large masses in the abdomen, swelling in both sides, and much obstruction in breathing. There was also localised fluid easily felt in the flank. It turned out to be sarcoma originating in stone and chronic kidney disorder.—Dr. DANIEL, referring to the disputed use of extract of conium, said that he preferred morphia as a sedative, because it was more certain in its operation.—Dr. ALLDEN OWLES did not regard the comparative absence of pain as weighing much against the symptoms of cancer in the case, as in his experience severe pain was far from being an invariable concomitant of abdominal cancer.—Dr. THOROWGOOD, in reply, said that it was, of course, possible to have abdominal cancer without pain. This might be a case of sarcoma, but the locality indicated that it was a colloidal form of cancer. He regarded extract of conium as a useful sedative, although it was not clear what was its effective principle, and although its mode of action was obscure.

Mr. PERCY POTTER showed a case of Post-hemiplegic Hemichorea with Hemianæsthesia, in which there were some peculiar clinical features. The patient, aged thirty-two, had been a soldier, and had always enjoyed good health previously to the present affection. He never had rheumatic fever nor syphilis, nor was there any history of injury to the head. The family history was good, except that his mother had temporary chorea. Eighteen months ago, whilst playing a wind instrument under the tropical sun of India, he became suddenly unconscious, and when he recovered consciousness there was right hemiplegia, without aphasia. This improved to some extent, but the muscles of the legs became atrophied, and the flexors of the foot tonically contracted, assuming, as in paralytic club-foot, the form of talipes equinus. Having returned to England, he was operated upon for this contracture, tenotomy of the tendo Achillis being performed at Netley Hospital three months after the outset of hemiplegia. This did not influence the deformity. Three weeks ago the patient was frightened by a mastiff dog, which knocked him down. Five days after there appeared chorea of the affected side. There was now well-marked right hemiplegia, including the face, without aphasia. The vision of the right eye was defective; the senses of smell, hearing, taste (as tested by aloes and colocynth) were blunted. There was complete anæsthesia of the right side of the face and leg; less complete of arm, trunk, and thigh. The symptoms of chorea consisted of sudden and unexpected jerks of the right arm and thigh, and right side of face. The muscular movements were quite uncontrollable. Tendon reflex and ankle clonus increased; no cardiac bruit; urine normal.

Dr. JAMES THOMPSON showed a Tumour removed from a woman, aged thirty-six, after its fifth recurrence. Its situation was in the median line at the border of the hair in the forehead. The size was that of a goose's egg, springing from a base only three-quarters of an inch in diameter. The original tumour was removed in 1869. At least four surgeons had operated. Both caustics and the knife had been used. Dr. Thompson operated with Richardson's scissors, and applied the actual cautery to the root. A committee was appointed to report upon the character of the tumour. Dr. Thompson also exhibited a Calculus, believed to have been formed in the ureter.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Jan. 11th, 1883, Mr. B. Walker, President, in the chair.

Excision of Wrist.—The Pathological Committee presented its report on the specimen exhibited by Mr. FAVELL at the meeting on Dec. 7th. Amputation had been performed in the lower part of the forearm in a case in which excision of the wrist had some time previously been done. The report described the dissection of the specimen, which revealed caries of the metacarpal bones of the index and middle fingers and of the lower end of the radius. The flexor tendons of the wrist were somewhat matted to the surrounding structures, whilst the extensor tendons, some of which had evidently sloughed away, were still more firmly fixed.

Intussusception.—Dr. SINCLAIR WHITE related the particulars of this case. The patient, a boy, aged five, was admitted into the Public Hospital, on Dec. 14th last, with most severe scalds of the buttocks and thighs. There was also slight bronchitis. There was no collapse, and the child was comfortable through the night and next day until 5.30 P.M., when vomiting and purging commenced. This continued, and he became collapsed and died at 7.30 the same evening. The post-mortem showed an intussusception of the small intestine at the junction of the jejunum and ileum two inches long. There were no inflammatory signs observed, and a full-sized catheter could be passed through the invaginated portion. Dr. White suggested as queries, Was the intussusception the cause or the result of the vomiting? or, Was it produced about the time of death?

Sarcoma of Femur.—Mr. R. J. PYE-SMITH showed the knee, &c., which he had amputated the day before on account of a tumour about the internal condyle. A. H——, a lad, aged nineteen, had had slight pain in the right knee for three or four months, and for six weeks the inner side of the knee had been enlarging. He had kept at work as a glass-moulder, which involved his kneeling constantly, till he came to the Sheffield Public Hospital and Dispensary three days ago. There was a firm, smooth, tumour, as large as a fist, growing apparently from the inner condyle. It was slightly tender, but not red, and it did not pulsate. The inguinal glands were not enlarged. On admission an exploratory incision was made, and some small pieces of a soft tumour mixed with bone were removed for examination. They consisted of very variously shaped large cells, without any well defined arrangement. The limb was amputated next day in the middle of the thigh. On making a section of the tumour, together with the femur, the lower end of the shaft was found to be slightly enlarged, and infiltrated with a soft, pale material, which invaded to a small extent the epiphysis also. The inner wall of the bone was replaced by a blood-stained growth, nearly as large as an adult fist, made up of a loose, bony framework, containing small nodules of soft brainlike tissue; it was not encapsuled. It seemed evidently a malignant growth, corresponding with cases formerly described as encephaloid, but classed as sarcomatous by more modern authorities. The specimen was referred to the Pathological Committee for examination.

Case of Pericarditis with Effusion.—In bringing forward this case, Dr. MARTIN referred to the insidious onset of the disease, and to the fact that it had only been preceded by rheumatic shoulder pains, so trivial as to escape the patient's attention. There was no further personal history of rheumatism, nor, indeed, any in the family history. The patient, aged twenty-nine, formerly a wine and spirit merchant, was a well nourished and well developed man. He had taken freely of alcoholic drinks. Dr. Martin had first been consulted on January 5th this year. The patient had just changed houses in consequence of the dampness of the one he had left. For some time he had experienced a cough and dyspnœa, and for ten days before the date mentioned he had not been able to lie down, and had suffered from sleeplessness. Now the heart's dulness was found greatly enlarged, being five inches and a half vertical by six inches horizontal; no displacement of point of impulse. A double friction murmur was heard at the heart's apex, and well round into the axilla. There was no elevation of temperature; the treatment adopted consisted in the application of a blister and the administration of digitalis with the iodide and bicarbonate of potassium. Recovery was rapid. On January 11th the dulness over the heart had receded to three inches in the vertical and four inches and a half in the horizontal direction. Friction sounds were diminished. Dr. Martin laid great stress on the point that we may have inflammatory affection of the great serous membranes, which must be regarded as a local manifestation of the gouty or rheumatic dyscrasia and not as idiopathic disease. An interesting discussion took place connected with the points raised and as to the benefit to be derived from blisters, in which the President, Drs. Law, Dyson, Gwynne, and Davies, and Mr. Pye-Smith joined.

SINCE the reduction in the salt tax in India the consumption of that article has increased to 21,500,000 maunds at the end of December, against 20,000,000 in the financial year of 1881–82, and 19,500,000 maunds in 1880–81.

Reviews and Notices of Books.

Legal Medicine. Part I. By GEORGE MEYMOTT TIDY, M.B., F.C.S. London: Smith, Elder, and Co. 1882.

MR. TIDY is following in the wake of fashion, and has given to the world this first instalment of his treatise on Legal Medicine in a very ponderous form. The book is an octavo volume as large as one of the volumes of Ziemssen's Cyclopædia, and weighs nearly five pounds. The paper is thick, the type is large, and the margins are liberal, and to these features chiefly is due the size of the volume. The title-page bears an extract from one of Canon Liddon's sermons, and the volume is dedicated to Baron Huddlestone, and thus divinity and law are made to assist as it were at the birth of this last offspring of legal medicine. The book is necessarily, to a great extent, a compilation; and the large number of cases and extracts from medico-legal writers and the medical journals will be found to be among the most useful of the contents of the volume. For the most part it does not differ materially from other works on medical jurisprudence; and the reader who is acquainted with Christison, Taylor, Guy, Ogston, and Orfila will be able to read much of these author's writings in the pages of Mr. Tidy. Certain portions are new, and although their right to be included in a treatise on legal medicine is open to question, they are nevertheless acceptable, for they relate mainly to the chemical part of the subject, and that, we take it, is the part in which Mr. Tidy feels most at home. Then there is an interesting chapter on Combustibles and Explosives, a subject upon which every intelligent man of science will be glad to have some definite knowledge. There is a section on Handwriting and Inks which is interesting, and another on Methods of Embalming, of which the medical jurist ought clearly to have some knowledge. There are twelve chapters in the present volume, which are devoted to Introductory matter, Death, Identity, Causes of Death, Post-mortem Examinations, Sex and Monstrosities, Life Assurance, &c., Heat and Cold, Burns and Scalds, Lightning, Combustibles and Explosives, and Starvation. Thus the present volume deals with but a small portion of medical jurisprudence. The introductory chapter, which was delivered in the form of a lecture at the London Hospital in May, 1881, is less of a compilation than the rest of the volume, and may be looked upon as the digested and matured views of the author. The paragraphs on the "Process of Law" are too meagre, and are deficient in advice as to the mode of serving subpœnas and the responsibilities they entail, together with details which every medical witness requires to know. The advice is very properly given never to make a post-mortem examination in a hurry or by "artificial light"—although the reason for this latter piece of advice (sound enough in itself) strikes us as peculiar—viz., "*that certain important appearances (such as the yellow colour of the skin induced by picric acid poisoning, &c.), might and probably would pass unnoticed.*" "Don't walk down Piccadilly in the dark for fear of not recognising the Pope" is a parallel piece of advice. It is certainly a very chemical view of pathology.

Coming to the subject of Evidence, we find the following: "Evidence is of two kinds—(1) *direct* or *positive*, and (2) *circumstantial*. Thus, if a witness were to say, '*I am certain that the prisoner is the man I saw knock the deceased person down*,'" ..... provided the witness is to be believed, such evidence is *positive*, and the jury have no alternative but to find a verdict in accordance with it. But if the witness were to say, '*To the best of my belief the prisoner is the man*,' explaining that at the time the crime was committed the night was dark or that he himself was flurried, then a doubt hangs over the evidence of identity, which at best is merely *circumstantial*."

Mr. Tidy, we hope, means to say that when the direct evidence of identity is defective it will have to be established by circumstances; but he is not clear, and the student would be apt (if he were a very foolish and ignorant one) to take Mr. Tidy's last sentence in italics as a sample of circumstantial evidence.

Again, when speaking of the differences between common and skilled witnesses, Mr. Tidy says: "A *common witness* has to speak to the matters of fact which have come within his personal knowledge—that strychnia was present in the stomach of the deceased," &c. It is something new to be taught that the presence of strychnia can be sworn to as a fact without the evidence of a skilled expert. A common witness might say that he saw some white powder in the stomach, or that what came from the stomach was bitter; but no common witness is capable of swearing to the presence of strychnia in the stomach, and we think that those whose profession it is to do so would object to be paid the fee of a common witness for this trouble.

Next we come to this remarkable paragraph:—

"And here a few words are suggested on the vexed question of *expert evidence*. Nothing is more terrible to contemplate than a traffic in evidence either for gain or notoriety. Hence we lay down this definite rule, that, in our judgment, should always guide the scientific expert—viz., that no one is justified in giving evidence in support of a case, or in support of that part of a case upon which he may be specially retained to give evidence, that he does not believe to be right and true. Any evidence offered by the expert in the witness-box should be as honestly and truly his scientific belief, influenced by reasons as definite and as accurate, as if he were arguing the points in dispute before a scientific tribunal competent to weigh his arguments and pronounce on his opinions with accuracy and precision."

It is rather galling to be advised in this quiet way that on the whole you had better be honest. The paragraph is terribly suggestive of the nature of science in a law court, and seems to give colour to the degrees of comparison of untrustworthy evidence once given by a now well-known judge—viz., "positive, lies," "comparative, big lies," "superlative, scientific evidence." We hope Mr. Tidy will omit this paragraph in his next edition, and substitute for it a shorter one, to the effect that a scientific witness is expected to speak "the truth, the whole truth, and nothing but the truth."

A Study of the Tumours of the Bladder. With Original Contributions and Drawings. By ALEX. W. STEIN, M.D., Surgeon to the Charity Hospital, New York. New York: William Wood & Co. 1881.

TUMOURS of the bladder are of such infrequent occurrence that it does not fall to the lot of any surgeon to see a large number, and himself to acquire such experience as to form a sufficient guide to his fellows. Dr. Stein has had the good fortune to meet with certainly two, and probably four, cases of vesical tumour within a few years, and this has naturally excited in him a considerable interest in this important subject. He has therefore searched for all the recorded cases of bladder tumour, and not the least valuable part of the work before us is the extensive bibliography with which it commences, in which the references are given in chronological order. The tumours are classified into papillomata, myxomata, fibromata, myomata, carcinomata, and sarcomata, and the anatomical characters of each group, with certain etiological and clinical features, are first discussed. A satisfactory microscopical examination of a number of the recorded specimens is unfortunately wanting. The sections on symptomatology and diagnosis contain a large amount of useful information. In the chapter on Treatment a brief account of every recorded attempt to remove a vesical tumour is given, the cases being arranged in chronological order and grouped into females and males. The fact which Dr. Stein insists upon is that these records show that the operation of removal of a tumour of the bladder is a very successful proceeding in the female, and far more successful than is usually imagined in the male. He has been able to

find twenty-three cases of this operation performed upon females, in seventeen of which the growths were removed through the previously dilated urethra, and in six by means of an incision of the urethra or of the vesico-vaginal septum; of this total, thirteen recovered, two patients were improved, and eight died. The tumours removed included papillomata, myxomata, myomata, and sarcomata. The male bladder has been similarly operated upon eleven times; eight times through the perineum, once above the pubes, and twice by supra-pubic and perineal cystotomy. Six of these operations proved successful and five were fatal. The six successful cases include five in which the perineal operation was performed, and Billroth's well-known case of the double incision. The author thinks the perineal operation the more generally available, but also speaks in warm praise of the supra-pubic operation, chiefly because by it the parts are freely exposed to view, and also because it affords facilities for dealing with very large tumours.

A Treatise on the Theory and Practice of Medicine. By JOHN SYER BRISTOWE, M.D., F.R.S. Fourth Edition. London: Smith, Elder, & Co. 1882.

THE steady demand for new editions of this text-book affords sufficient testimony to its worth, and the author himself has been careful to improve each succeeding edition by the introduction of new matter and careful revision of the old. He has thus endeavoured to keep abreast with the growing progress of medicine, and we find incorporated in this edition such subjects as an account of the bacillus of tubercle, the mitigation or attenuation of contagion, as well as a summary of Dr. Sanderson's lectures on the power of inflammation, delivered last year at the College of Physicians. The chapter on Ophthalmoplegia has been revised and expanded, and a new article added upon the interesting disease, acute ascending paralysis. We note, also, a considerable increase in the number of illustrations. There is no need to commend this work to students, for it has obtained a well-deserved success, and now holds a firmly established position amongst our text-books.

The Contagiousness of Pulmonary Consumption, and its Antiseptic Treatment. By I. BURNEY YEO, M.D. London: J. & A. Churchill. 1882.

DR. YEO has reprinted with several additions, in the form of appendices and notes, the text of two lectures delivered at King's College Hospital last summer. The lectures are written in a clear and comprehensive style, and they review the arguments in support of the notion that tubercular phthisis is communicable, as derived from experimentation on animals, from a certain amount of clinical experience, and, lastly, from the discovery of Koch, which may make the past year memorable in the history of pathology. We think, however, that until more clinical facts are available of the actual transmission of pulmonary tuberculosis from one individual to another, it is somewhat premature to deal with the subject, except as a matter for speculation, and we do not think Dr. Yeo would go further than that at present. It is encouraging to learn from him of the value of antiseptic inhalations in phthisis, for the mode of administering which he gives ample details.

A Pharmacopœia of Selected Remedies, with Therapeutic Annotations, &c. Arranged as a Handbook for Prescribers. By EDMUND A. KIRBY, M.D., M.R.C.S. Eng., late Physician to the City Dispensary. Sixth Edition, enlarged and revised. London: H. K. Lewis. 1883.

DR. KIRBY'S book has, in this edition, been entirely remodelled, and several changes have been introduced which tend to make it even more useful to practitioners engaged in private practice than it was in the older editions. The materia medica has been compiled from the British and American Pharmacopœias, and, in addition, includes many valuable non-officinal remedies which are largely employed, and have gained considerable reputation, in English and American practice. An Index of Diseases and Remedies is also appended—a plan followed in all the most practical works on therapeutics. The object which the author had in view—viz., to supply the private practitioner with therapeutical data as to some of the more important remedies used in the metropolitan hospitals, and to put into his hand the most efficient formulæ of remedies for the general treatment of disease—has been fully attained. The book is well written, well arranged, well got up, and eminently useful and practical.

New Inventions.

FILIFORM BOUGIE-LENGTHS.

AT a recent clinical lecture at the Liverpool Royal Infirmary, Mr. Reginald Harrison exhibited some flexible filiform bougies which had been made for him by Messrs. Krohne and Sesemann of London. Their use was also demonstrated on a patient with a tight stricture, where considerable difficulty had previously been experienced in getting any instrument into the bladder. The peculiarity of this form of bougie consists in its being made in lengths of twenty-four inches. At the extremity it corresponds in size with the finest filiform instrument, and gradually increases in diameter for eighteen inches, until No. 8 (French scale) is attained. In explaining its use, Mr. Harrison stated that in the construction of these instruments he had adopted a principle which was well known, but had not, he believed, previously been applied in a precisely similar manner. In cases of tight stricture which only admitted a very fine filiform instrument, it was sometimes found impossible to pass successive sizes, and consequently the process of dilatation was arrested at a stage at which its performance was most difficult to accomplish. By putting eight sizes (French scale) on one instrument this difficulty was surmounted. The transition was very gradual, and as the end of the instrument entered the bladder, it curled up within its interior until the whole of the bougie (as far as the increase in size went) had been made to pass through, and thus gradually to dilate the stricture. In this way eight sizes (French scale) of filiform instruments were comprehended upon the one length. When the urethra had been dilated sufficiently to receive a No. 8 bougie (French), Mr. Harrison considered that the chief difficulty of these cases had been removed; he therefore thought that this adaptation of the wedge principle might be found useful in practice. To make the process sufficiently gradual, the length of these instruments had been extended to twenty-four inches. To distinguish them from ordinary filiform bougies, it was suggested that the term "filiform bougie-lengths" might be applied to them.

ST. JOHN AMBULANCE ASSOCIATION. — Lady Brassey has elaborated a scheme by means of which it is hoped new centres will be started in many of the towns in Sussex, with branches in all the surrounding villages, each having its committee and local secretary, each its separate classes, and each its separate hamper at the post-office, or other central locality, with the appliances necessary for use in case of accident. One of these centres has lately been established at Battle, with fifteen of the neighbouring villages attached as sections, and similar districts will shortly be formed at Bexhill and Rye. Six hundred pupils, chiefly colliers in the mining villages around Middlesbrough-on-Tees, where a centre was opened over a year ago at Lady Brassey's instance, are now undergoing examination by Surgeon-Major George Hutton, late Rifle Brigade.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 3, 1883.

A SCHEME for instituting examinations and granting special certificates or diplomas in the subjects of Hygiene and Psychological Medicine is at the present moment under the consideration of the Fellows of the Royal College of Physicians, the Council of the College having reported that the establishment of such examinations would "confer a great benefit on the public, and supply a much-needed want in the profession." In seconding the recommendation of the Council, as far as special certificates in hygiene are concerned, we wish it to be distinctly understood that we in no way depart from the position we have always maintained of the inadvisability of multiplying examinations in special subjects, or the impropriety of the various corporate bodies engaging in such schemes, when the consolidation and unification of examinations are the professed aims of all who have the true interests of the profession at heart. But the question of the proposed examination in hygiene by the Royal College of Physicians seems to us to form an exception to a general rule, and, indeed, as matters stand, we do not see how the College can evade its responsibilities in this respect, and pass over the strongly worded report of its own Council. It is, indeed, much to be regretted that the Royal College of Physicians did not take the initiative some years ago, when the proposal for a joint examination by all the corporate bodies in State Medicine was under consideration. Had the College done so, there is little doubt that the other examining bodies would have joined with it, instead of, as is at present the case, many of them instituting examinations in this subject on their own account. At that time, however, difficulties, perhaps jealousies, arose—some were too slow, others too prompt, to act,—and joint action became impossible, and so a useful scheme passed away as a matter of discursive talk or of inoperative resolutions. Still a certificate in State medicine was a practical need, and to supply the loudly expressed want the University of Cambridge, with a promptness that did it infinite credit, instituted a special examination in State medicine, and, with a liberality wise and far-seeing, opened it to all legally qualified medical men. The result encouraged other bodies to do the same, limiting, however, the examinations to candidates already licensed by them. Such being the state of affairs, it was manifestly impossible for the Royal College of Physicians to stand aloof any longer from the movement, unless it wished to repeat the same policy of self-effacement in regard to examinations in hygiene as it did formerly with regard to examinations in general medicine, and which for years took the examination of the general practitioner out of its hands, and raised the Apothecaries' Company to a position of power, wealth, and consideration. However much we may applaud the action of the University of Cambridge, we should regret to see any university, however distinguished, assuming and carrying out the duties that pertain to the Royal College of Physicians. That Corporation, governed as it is by its President and Fellows only, is the representative body of the profession, and as such is looked up to for light and guidance in all matters of professional interest; and though at times, through timidity, and sometimes through a false assertion of dignity, it strikes a wrong chord, yet on the whole there can be little doubt of the loyalty and affection with which it is regarded by the profession at large, and which we think is fairly shown by the numbers, every year increasing, that seek its licence. But the question may be asked whether the necessity exists for a special examination in this subject of hygiene; and supposing it does, whether it is advisable to separate it from the general examination for the licence or membership. If the question referred to a special examination being instituted in midwifery, ophthalmology, gynæcology, dermatology, or the like, we should unhesitatingly declare against it, since these are based on the study of anatomy, physiology, and pathology, in the same way as is general clinical medicine. But with hygiene special scientific subjects have to be studied. A medical officer of health should have a thorough knowledge of geology, of physics, mechanics, hydrostatics, and pneumatics. He must be a good analytical chemist, and it is absolutely requisite that he possess a practical knowledge of architecture—at all events, of all essential points connected with the building of dwelling-houses; and he should be skilled in all matters concerning bricklayers' and plumbers' work, in order to direct operations or to expose scamping. Now, however important it is for every medical man to give advice and to have a tolerably distinct idea with regard to questions of sanitary science, it is only a few, who desire to make the study of it a special pursuit, who will have mastered all these technical details, and it is only fair that the man who has the special knowledge should have the opportunity of showing he possesses it. If only a general average is required with regard to hygiene from all candidates possessing a medical degree without reference being made to any special qualification, how are local boards to distinguish between candidates possessing the technical knowledge required from a medical officer of health and candidates who do not possess it. This is the position the licentiates of the Royal College are in at present: if a man has undergone a special training with a view to qualifying for the post of medical officer of health he has no opportunity of obtaining a recognition of that knowledge, and stands on the same terms as a fellow candidate who may not know the difference between a water- and a soil-pipe. If he desires an examination which shall be at once a qualification and a testimonial, he has to seek it in another quarter. The present proposal before the Fellows does away with this piece of injustice towards their own licentiates, and if carried in its entirety it will also confer a benefit on the profession at large, by allowing all qualified members of it who are desirous of making State medicine a special study to come forward as candidates for the diploma in hygiene. We congratulate the Council on the step they have taken, and hail it as another evidence of reviving animation, of which we have had many signs of late under the present President, aided as he has been up to the present time by a Council largely composed of eminent metropolitan teachers.

ALTHOUGH only a short time has elapsed since KOCH'S important discovery of the bacillus of tubercle was made known, facts are being rapidly accumulated in support of the truth of that discovery; observers in various parts of the world are engaged in the work, and in drawing conclusions from the facts observed. The subject is now forming material for debate at the Medical Society of London, where Dr. WHIPHAM last Monday introduced it in connexion with a case in which the detection of the organism proved of great service in establishing a diagnosis; and we publish to-day a paper recently read before the Society of Medical Officers of Health by Dr. HERON, detailing his experience in sixty-two cases of phthisis of dissimilar type, and amongst individuals of different classes. Much no doubt remains to be established, and in particular should caution be used in arriving at conclusions respecting the question of the communicability of phthisis from one human being to another, which is, after all, the most important issue arising out of KOCH'S experiments. This is the question which, long a matter of popular belief, must now be submitted to the most rigorous scientific scrutiny, and seeing how vast a revolution it would make in the care and treatment of tuberculous individuals, we must not be content with anything short of actual demonstration of the fact of contagion. The discovery of the bacillus was not indeed a fact which was unexpected by pathologists. The whole pathological history of tuberculosis—its mostly local origin and frequent general diffusion throughout the body—pointed to its infective character, and a virus was assumed to exist years before it was associated with the presence of a definite micro-organism. The doctrine of BUHL, that miliary tuberculosis in a majority of cases resulted from the infection of a caseous focus, received greater significance when experimenters, as VILLEMIN, WILSON FOX, and SANDERSON, tested it by the inoculation of tubercle upon the lower animals, albeit their experiments proved too much in showing how prone rodent animals were to such disease upon the slightest irritation. Further, COHNHEIM a few years ago fully and freely adopted the doctrine of the infectiveness of tuberculosis, applying it not only to the possibility of the transference of the disease from man to man, but from animals to man—a conclusion which was further encouraged by such writers as CREIGHTON, who advanced arguments in support of the transmission of bovine tuberculosis to the human species, through the consumption of the flesh or milk of the diseased animals. Thus, neither BAUMGARTEN'S work, nor that of KOCH, came upon a world unprepared to accept their teachings. The conclusive and brilliant research of KOCH was accepted all the more freely because it seemed to be the natural outcome of the slow growth of pathological inquiry upon the disease.

Pending the progress of the debate at the Medical Society it would hardly be advisable to enter fully into all the bearings of the subject, but there are a few points which seem to be fairly well established as arising out of the presence of this organism in ubercular material, points which were ably dealt with by Dr. WHIPHAM and the speakers in the debate the other evening. The first of these is as to the nature of phthisis. All observers unite in saying that the bacillus is never present in the sputum unless the case is one of phthisis. For a generation and more the whole attention of pathologists has been directed to the subject of the nature of a disease that appears under so many forms, runs so varied a course in different cases, and presents such a complexity of lesions after death. LAENNEC'S criterion of tubercle, the tubercle corpuscle of LEBERT, the giant cell of SCHÜPPEL, have one and all had their day, nothing pathognomonic or distinctive being found in their character or source. Of late years, it is true, not only the French, but the German school has so far reverted to LAENNEC'S teaching as to have arrived at the belief in the underlying presence of tubercle in every form of phthisis strictly so-called, a view that ten years ago was advanced by Dr. WILSON FOX before the Pathological Society, and opposed by several able pathologists imbued with the teaching of VIRCHOW. If the bacillus be the constant concomitant of tubercular disease—if, in other words, Dr. KOCH'S researches be accepted and confirmed, as they are being, then at last we have a criterion of tubercular disease which will tend to establish, as Dr. GREEN pointed out, the doctrine of the "unity of phthisis." In this respect also, then, just as with the infectiveness of tuberculosis, KOCH'S research comes to verify an idea that was being slowly arrived at by pathological histologists.

Another point of advance is the aid given in the diagnosis and prognosis of tubercular disease by this discovery. Dr. WHIPHAM'S case illustrated its value on the former head. The case was one of that class in which the symptoms of pulmonary mischief were almost in abeyance albuminuria and diarrhœa being its prominent features. Moreover, there was almost an entire absence of pyrexia throughout, so that the thermometric indications of tuberculosis were wanting. As the case progressed, a few indeterminate physical signs appeared in the lungs, and an examination of the sputum revealed the presence of bacilli. In such a case, where the tubercular disease was suspected, but not proved, the detection of the bacillus clinched the diagnosis, which the post-mortem examination confirmed by revealing not only extensive tubercular ulceration of the bowels and lardaceous disease, but also widespread softening tubercle of the lungs. A case the converse of this was mentioned by Dr. YEO. It presented the symptoms and signs of acute general tuberculosis, but repeated examinations of the sputum failed in detecting the bacillus. The patient died, and the lesions of typhoid fever were found, together with much bronchitis and pulmonary congestion, but not a trace of tubercle. Drs. WHIPHAM and WEST both instanced other cases in which the absence of bacilli from the sputum accorded with the absence of clinical evidence of phthisis. Very interesting are the statements made as to the importance of these bacilli in prognosis. Drs. HERON and GIBBES have already pointed out that in the more rapidly progressive cases the bacillus is found in the sputum in great numbers, whereas in the more chronic forms it occurs quite scantily; and precisely the same observation has been made by Drs. WHIPHAM and WEST, as well as by BALMER and FRAENTZEL. Dr. WEST supplied an explanation for this in the fact that the bacillus abounds in the caseous lining and contents of the pulmonary cavities, and may, therefore, be expected to be very abundant in the sputum in cases

of rapid softening. This fact is one which deserves considerable attention, as bearing upon the supposed causal relation between the bacillus and the disease. We have yet to learn whether the very earliest stages of the disease are recognisable by the presence of the bacillus, and it is very interesting to learn from Dr. WHIPHAM that in cases where the disease is arrested or is improving under treatment, they may be absent altogether. To clinical observations like these we require the addition of multiplied research into the diseased structures, and the bacillus must be found in the minutest granulation before assigning to it all the importance which is claimed for it.

The last point we will touch upon at present is the one to which we have already adverted as being by far the most important subject of all. What bearing has the discovery of the bacillus upon the doctrine that phthisis is contagious? The subject is one which is beset with difficulty, and most of us will agree with Drs. WHIPHAM, GREEN, and WEST in approaching it with the greatest caution. For as Dr. GREEN pointed out, and as Dr. RICHARDSON most strenuously urged, all that we know of consumption clinically is opposed to the notion. At any rate, there are other factors at work, such as an inherited tendency to the disease, and individual habits and surroundings favouring its development, all of which have to be taken into the reckoning. Even looking at the subject from a wider point of view, and dealing with pulmonary phthisis as but one of many manifestations of tuberculosis, are we any nearer a solution of the question? Assuredly not; it yet remains to be proved that tuberculosis is contagious *in the ordinary sense*. Save in a few cases of almost direct breath-to-breath inhalation, we doubt if one practitioner in this country would affirm the proposition. Dr. RICHARDSON said that in all his experience he had not seen one case that afforded support to this theory, and rightly pointed out that families predisposed to the disease and exposed to the infection, would be decimated on the development of a single case in their midst if the disease were contagious. The probability is that it will never be proved to be contagious in the ordinary sense—a view which by no means denies the truth of the facts as to its communicability by inoculation, which, as we have endeavoured to show, are supported not only by the experiments of KOCH, but by accumulating knowledge of the nature of tuberculosis. Let the fact of the inoculability of tubercle be first proved clinically, if it can be, before venturing to deal with the question of contagion at large, with all that would follow from the acceptance of the latter.

At present it may even be going too far to compare tuberculosis with such inoculable diseases as vaccinia and syphilis. Vaccinia is a disease in the virus of which a specific organism has been found; of its inoculability there can be no question, but of its spread by aerial contagion there is equally no ground for belief. Syphlis has even closer analogy with tuberculosis, but it is not contagious save by the direct transference of its virus. Is it not probable that the tubercular virus is conditioned by similar limitations, to which may also, in the majority of cases, be added the existence of other factors, of which there is danger of losing sight in the premature adoption of one narrow view?

SEVERAL questions of fact in the West Malling case must now stand over for investigation by the Law Courts: what preparation was administered by the Rev. J. H. TIMINS to SARAH WRIGHT—whether the harmless oil of almonds or the volatile or essential oil; whether, in the latter case, he administered it ignorantly or by pure misadventure; whether, for the fifty minutes during which he stayed with the deceased after giving the dose there were absolutely no indications of poisonous symptoms; whether, after administering it to the daughter, he offered some to the mother—all these and other grave questions must be investigated elsewhere, and meantime we express no opinion on them. The position of Mr. TIMINS is too serious and painful for us to think of exaggerating it by any reflections on doubtful points. But on the main facts admitted by Mr. TIMINS himself we may comment with advantage, we hope, to him and to those of his clerical brethren who are fond of trenching on the ground of medical men. The number of these is, we believe, rapidly declining. The art of medicine is felt to be difficult enough for those who devote themselves first to the study and then to the practice of it, and to be a very perilous occupation for those who have only a smattering of knowledge, or even for those who attended classes forty years ago, and still indulge in reading the works of men who were then authorities. This is the view taken, we think, by the great majority of educated and intelligent clergymen. Those who do not hold it, by a merciful arrangement of Providence, generally represent what little remains of true Hahnemannism, and go about with a few globules of a harmless character in a little case, from which they minister to the various lighter ailments of their parishioners. But Mr. TIMINS unfortunately was not a homœopath, and does not seem to have contented himself with attention to light ailments. In the present instance the mother despaired of the patient's life. Mr. TIMINS, however, was equal to the occasion. He undertook apparently a thorough examination, and passed a judgment on the state of the vital organs. "I told her [the mother] the girl's lungs were not so diseased as she supposed, and that with care and nourishment she would live; and I told her the heart was sound." There was a swelling of the neck. In his anxiety to prevent the spread of the prevailing scarlet fever, he examined a rash on the deceased, whose brother was ill at the same time with that disease and actually under the care of a medical man; and after examination of the girl with the swollen neck and rash, and a brother in the house with scarlet fever, he was able to pronounce confidently that the case was only one of nettle-rash. Such minute attention to grave disease would be intelligible and creditable enough in a missionary in the middle of Africa; but in a country village in Kent, with three or four doctors, and one actually in attendance on another member of the family, such action on the part of an experienced clergymen is most unreasonable. Mr. TIMINS's little medical education forty years since is rather an aggravation of his behaviour than an excuse for it. It should have been more apparent to him than to others how dangerous a little knowledge is in medical matters, and how different is the state of medical knowledge now from what it was then. We have no wish to be too severe on Mr. TIMINS. He has been forty years in his parish, and seems to have been a useful and kindly vicar. He is the

treasurer of the Kent Nursing Institution, and appears to have interested himself in the welfare of his people. He has been all this on a very limited stipend. But he has greatly erred in dabbling with disease, and his error may well serve as a warning to those of his brethren who cannot be content with ministering to the spiritual ills of their parishioners. Young clergymen may well be on their guard against temptations to combine two professions, and should remember that if the diagnosis and treatment of disease may be an act of benevolence in a missionary, it is an act of great indiscretion in clergymen of a parish supplied with medical men.

THE statistical report on the health of the Navy for 1881, compiled by Fleet-Surgeon W. H. LLOYD, has just been issued as a Parliamentary paper. It shows the strength of the force afloat to have been 44,400 officers and men, who furnished 50,705 cases of disease and injury, 486 deaths, 1388 invalided, and 2049 constantly non-effective from disease and injury. From these numbers we find that the annual ratio of cases was 1142, of deaths 10·94, invalided 31·26, and daily sick 46·14 per 1000 of the strength. These results correspond very closely with those of the preceding year. The proportion of deaths shows a reduction of 1·63 per 1000, but was 1·42 above the average of the last ten years. The excess, however, was due to the melancholy loss of life caused by the blowing up of the *Doterel*, which added 144 deaths to the list. If the deaths from injuries, other than in action, be deducted, the ratio in 1881 amounts only to 5·85, and differs but by ·03 per 1000 from the average. These results indicate a very satisfactory state of health afloat, and afford practical proof of the care taken of our sailors in the way of preserving their health. The admissions ranged between 864 per 1000 on the home station and 1575 on the East Indian, and the deaths, if the Cape of Good Hope and Irregular Force be omitted, between 3·47 in North America and the West Indies, and 16·11 in the East Indies. On the West African and Cape station the deaths were 25·45 per 1000 of the strength, but 13·33 were from injuries in action among the men of the Naval Brigade landed in the Transvaal, and in the Irregular Force 29·39 in a total of 34·48 per 1000 were caused by the accident to the *Doterel*.

There does not appear to have been any remarkable occurrence of fatal disease on any of the stations. There were only 10 cases of cholera in the whole force, and of these 7 proved fatal; four of them, with two deaths, were on the China station, the disease being contracted at Shanghai, and the others were on the East Indian station—a fatal one at Bombay, and 5, with 4 deaths, in a party landed to occupy forts at Makulla, on the Arabian coast.

Enteric fever did not prevail to any extent during the year; there were only 26 cases, with 3 deaths, in the Home Force, and 8 deaths in the Mediterranean; there is an error in the statement of cases in the latter. Several of the fatal cases contracted the disease at Naples. Six cases and 5 deaths on the Australian station occurred at Sydney, where also there were 4 cases without a death in one of the ships of the Detached Squadron. These were "all contracted at Sydney, where the influences which cause the disease appear still to hold their ground. The reports from the ships state that the sewerage is still defective, but it is not reported whether there has been any improvement in the water-supply, the faulty condition of which has before been noted in these reports."

During the summer and autumn an epidemic of dengue prevailed among the sailors at Malta; the disease was believed to have been imported from Egypt, where it is stated to have been more or less epidemic since 1877; there were 146 cases, but no deaths or invaliding. The disease is not reported to have occurred on any other station. Remittent fever was the cause of 122 cases and 4 deaths in a force of 5080 on the Mediterranean station, the largest number being in the *Cockatrice* employed on the Danube. It was very prevalent also on the East Indian station at Zanzibar in the *London* and the *Ruby;* in the former its prevalence was attributed to climate, but intensified by the insanitary condition of the ship, and in the *Ruby* to "the unusual epidemic influences of this unhealthy season." On board the latter in a complement of 235 there were at one time 104 cases of this fever under treatment. The ship was sent to the Seychelle Islands, and "the beneficial results of a change of climate were soon manifested."

The numbers showing the influence of age upon the mortality are considerably affected by the loss of the *Doterel*, which appears to have had a large proportion of men between twenty-five and thirty-five. If the Irregular Force, to which the *Doterel* belonged, be omitted altogether, the deaths per 1000 run as follows:—Between fifteen and twenty-five, 6·12; between twenty-five and thirty-five, 9·26; between thirty-five and forty-five, 11·55; and above forty-five, 19·35; the numbers under observation in the last group, however, amounted only to 775.

In addition to the returns relating to the service afloat, there is a summary of the admissions and deaths in the hospitals at home, and also of the Royal Marine Divisions. It does not appear whether the deaths in either of these are included in the general return of the mortality of the Navy. Doubtless a proportion of those in the hospitals occurred among men invalided from foreign stations, and should, as in the army returns, be credited to the station from which the men were invalided. But even if this were not done, they ought certainly to be included in the general mortality of the navy. It is desirable that the report should show clearly what deaths are omitted from the general statement. If the strength of the marines on shore is not included in the average strength, of course neither should the deaths; but in such case a separate return should be given of them, showing the rate of sickness and mortality, exclusive of invalids from foreign stations. It would also add to the value of the report if some information were given as to the class of men included in the returns of the dockyards, the mortality among whom amounted to only 5·70 per 1000. We presume they are not included in any of the general returns; but if they are the regular dockyard workmen, information as to their diseases, their ages, and their general sanitary condition would be useful for comparison with similar data respecting the general population, and especially among the members of benefit societies.

IT is rumoured that the Board of Trade has already commenced action towards remedying the abuses existing in the medical and sanitary administration of Atlantic steamers,

The facts advanced by Dr. IRWIN, together with the unequivocal resolution of the Manchester Medico-Ethical Association, could not have remained unnoticed without seriously compromising the reputation of the Board of Trade, which is principally, if not alone, responsible to the country for the health and safety of passengers by sea. The evidence now before the public seems sufficient to justify the Board in at once asking Parliament for powers to institute such a Marine Medical Service as has been suggested, and to take under its immediate direction all that pertains to the sanitary administration of Atlantic emigrant steamers. Any claim of Government, or even of any private association of weight and respectability, to direct representation upon crowded passenger ships, must commend itself to every disinterested observer, more especially in times like the present, when both the Government and private bodies are expending large sums in defraying the expenses of emigration, and providing for the immediate necessities of emigrants after landing. If, however, full and public investigation is deemed a wise preliminary (and from this view we in no way dissent), we desire to warn those conducting it that they will have the same difficulties to contend against which have been so repeatedly complained of by Mr. PLIMSOLL and others in dealing with different departments of the mercantile marine. Authoritative statistics are indisputable; constructive sanitary defects in passenger steamers may be inspected by anyone; and the careless selection, inadequate remuneration, insufficient accommodation, and undefined position of the ship-surgeon, cannot be denied by the shipowners themselves. It may not be so easy to obtain competent and reliable evidence as to the sanitary condition of these vessels during the voyage, and as to the extent of the medical officer's authority in these matters. The shipowners, who unanimously object to Government interference, will naturally try to make it appear that everything is as it should be, and may even shield themselves behind the ambiguity of the ship-surgeon's position. Those in the employ of shipowners, and subject to instant dismissal by them, will not voluntarily offer statements contrary to the wishes and interests of their employers, unless fully assured of protection from another quarter. This, indeed, is the main reason why we have heard so little of these matters, and why such abuses as those described have existed almost without complaint.

It seems unquestionable that the passenger laws need an entire revision, and that our Government should come to some definite understanding with that of the United States, which also, and not unnaturally, claims the right of legislating for these vessels. Our own Passenger Act (1855), framed at the time when it had just been conceded that a "practitioner" of some kind should be carried by emigrant ships, although allowing Government considerable discretion in "promoting health and securing cleanliness and ventilation on board of passenger ships proceeding from the United Kingdom to any port or place in Her Majesty's possessions abroad" (Sect. lix.), makes no such adequate provision for vessels conveying emigrants to the United States. American legislation upon this subject, although singularly profuse, has been at least equally unfortunate. The Act of Congress which became law last August, is certainly no credit to the august assembly from which it emanated. Of fourteen sections, all except the last two, which deal with the title of the Act and the method of collecting fines, are upon distinctly sanitary matters; yet the "medical practitioner," who must be "duly qualified and competent," is completely ignored, except where he is included among other members of the crew, who are threatened with severe penalties if they "visit or frequent any part of the vessel provided or assigned to the use of such passengers, except by the direction or permission of the master of such vessel first made or given for such purpose" (Sect. vii.); and where it is ordained (Sect. v.) that unless his services are "promptly given in any case of sickness or disease to any of the passengers, or to any infant or young child of any such passengers who may need his services, the master of the vessel shall be liable to a penalty not exceeding two hundred and fifty dollars." Such matters as determining "adequate provision for affording light and air to the passenger decks"; and that the "watercloscts and privies shall be properly enclosed and located"; and that these and other spaces occupied by passengers shall "be kept at all times in a clean and healthy condition, and as often as may be necessary disinfected with chloride of lime, or by some other equally efficient disinfectant"; or the avoidance of anything "likely to endanger the health and lives of passengers," all these are left exclusively to the integrity and hygienic education of the captain, who seems expected to come forward and voluntarily criminate himself if on any occasion throughout the voyage the provisions of the Act had been neglected.

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF PHYSICIANS.

ON Thursday, the 25th ult., at the College of Physicians, four new councillors were appointed in place of those retiring from that office by rotation. We think it a matter for regret that in nominating the successors more attention was not paid to secure a fair representation of the metropolitan schools. Of the four gentlemen who retired, three—Dr. Wilks of Guy's, Dr. Stone of St. Thomas's, and Dr. Wilson Fox of University—are physicians actually engaged in the practical work of teaching in their respective schools, whilst of their successors three have had no connexion with a London school, and one only for a comparatively short period some years ago. Considering the position the Royal College of Physicians holds with regard to questions of medical education and medical examinations, it is of the utmost importance that those engaged in the practical work of teaching, and who are thus best able to form an opinion of the alteration and extension necessary to keep the standard of education and examination up to the level of continued advance in medical science, should form a weighty majority in the Council. As matters at present stand only seven out of eighteen of the members of the Council are attached to metropolitan schools of medicine and engaged in practical teaching. Of the remaining eleven, three at a remote date have been lecturers, five have never been attached to a London school, and three are provincial representatives. That the provinces should be duly represented on the Council is only fair and just, and we are pleased to see that of late years there has been an increasing tendency to recognise their claims both by a more liberal admission to the Fellowship and by direct representation on the Council. The recognition of the Services in the appointment

of Dr. T. G. Balfour is also a step in the right direction. But we must confess to a feeling that the other two vacancies ought to have been filled by representatives from the metropolitan schools, and by gentlemen who at the time were actually engaged in the work of teaching. More especially was such a step needed when the gaps in the Council are caused by the retirement of two such able and sagacious advisers as Dr. Wilks and Dr. Wilson Fox. The College could ill spare any of its long-tried officials who in virtue of their appointments have a voice in the Council, but we do think that when vacancies occur among those members of the Council who go out by rotation, care should be taken to secure the election of a fair proportion of teachers from the metropolitan schools, otherwise we shall have the College falling back on its old policy of masterly inaction, from which it has happily been emerging under the auspices of its present president, Sir William Jenner, seconded by a Council hitherto well represented by some of the leading teachers in the metropolis.

MONGREL WORDS.

AMONG the duties of the Registrar-General might, with some profit, be included that of recording the birth of mongrel or misbegotten words with which medical literature is more and more inundated. Although no department is free from this terrible invasion, it is to gynæcology that we turn as the field where these creatures wanton and are rampant. They remind us of the strange exhibitions to be seen at country fairs for the sum of one penny—such as the pig-faced lady. But we will not compare them to the mermaid, round whom time has thrown something of a halo of romance; to the wyvern or the gryphon, the props of so many ancient houses; nor to the chimera of classical memory—so ugly, so unromantic, so unnecessarily and atrociously hideous are they. It is perhaps too late to protest against "cellulitis," or possibly "vaginitis," or "retro-uterine"; but why should we be obliged even to recognise the existence of such words as "peri-uterine," "peri-cerebritis," "endo-cervicitis" (a sort of sandwich nastier than any ever purveyed at Mugford Junction), or the wanton insult of "atrophicans" or "amyotrophic"! To tell the truth, most of these monsters are not of British breeding, but are generally imported from abroad, and in this respect we are doubtful whether the stolid unscrupulousness of a German or the gay indifference of a Frenchman produces the more excruciating results. If these words are mostly coined abroad, they are adopted without scruple here; it is sufficient for many (who ought to know better) that a disease has been called the —— of Prof. Geheimrath von Wurst, or the —— of M. le Docteur Le Gros, for them to embody it and do their best to propagate it, instead of resolutely refusing it admission, or at least holding it up to proper derision in inverted commas, if it has unfortunately already taken root. We learned at school, "Ingenuas didicisse fideliter artes emollit mores, nec sinit esse feros"; but these gentlemen seem to think that the fact of such words being "feræ naturæ" is sufficient excuse for "preserving" them. It does not, however, follow that a German professor who makes interesting autopsies is necessarily skilled in philology, any more than it follows that a Lord Chief Justice is necessarily an authority on experimental physiology, or a president of the Obstetrical Society on counterpoint and fugue. Besides, there is something ungenerous in the whole concern. The ancient Greeks are dead, alas! the ancient Romans are also no more (we wish we could say "Alas!"), and cannot defend themselves. If these gentlemen must try experiments, let them do it on each other; let the Frenchman make words with English heads and German tails, &c., and see how they all like it. It seems to us far from improbable (though we are not able to state it as a fact) that Dr. Schliemann's recent excavations have been materially facilitated by the commotion which such liberties must have produced among the bones of the Trojan heroes. The mode of production is probably very simple: you borrow a Greek and a Latin dictionary from a friend, look out one or more words, prefixes, and terminations from each, and put them into a sort of literary rat-pit to fight it out together. Seriously, these words are rarely necessary; they are mostly new names for things which have been known since the year 1; but if a new name should become necessary, its formation is too important a matter to be dealt with in this way. For the offenders—in Latin at least better than their own, however far removed from a classical type—we would suggest the following prescription:

Herr Geheimrath Prof. von Wurst.

℞ Felem novemcaudatam (3×3).
Dorso vel natibus ter die fortiter applicandam.

NET VALUE OF PRACTICES.

THIS is a matter of considerable importance to a very large proportion of medical practitioners. It is a subject which at various times has provoked much discussion, but about which nothing very definite is known. There can be little doubt, however, that, as a rule, young men who purchase the half-share of a practice of, say, £1200 or £2000 are generally unduly sanguine as to the amount of income they will receive. They overlook the fact that the working expenses have to be deducted from the round sum, and over-estimate the probabilities of increase the practice is capable of. It is difficult to estimate what proportion of receipts has to be deducted as working expenses. In large towns with a limited country area, perhaps one-third will meet them, but in small country towns with extensive rural districts certainly one-half has to be put aside. Again, if the young doctor is to make his way and increase his practice, he must be prepared to pay a good rent for his house; he must keep sufficient horses to get over his work smartly and with little apparent effort; an assistant, too, must be engaged, if he has a country district in addition to his town work, so that emergencies may be attended to promptly during his absence on long journeys. Then his social position has to be secured, and whilst his senior partner is receiving arrears from old debts to the practice, the junior has the mortification of finding that a considerable proportion of his assets is represented by deferred payments. Again, with regard to the expected increase of the practice, a man who has recognised fully the difficulties we have described often argues that when two men work the practice the income will naturally increase. This may be so in large towns with a fluctuating population or in rising suburbs, but in ordinary country towns it takes a considerable time for even an exceptionally good man to make his mark. The population is generally a stationary one, and it is, as a rule, eminently loyal to its professional men, and dislikes changes of any kind. We do not make these remarks with a view to discourage the sale or purchase of practices, but rather to prevent the disappointment and unpleasantness that often arise from a too sanguine estimate being taken in the first instance. We believe this would be much lessened if the net value instead of the gross value were made the basis of the negotiation, and also if, instead of a lump sum being paid down, the payment of the purchase money were spread over a term of years. This would give time for the payment of book debts, which each year would increase the net income, and allow the newcomer time to get over his first expenses. A man who pays £2000 down for the share of a practice bringing in £1000 a year gross, and leaves no limit, is sure to find the net income derived from this, for the first year or so at least, barely sufficient to meet his ordinary require-

ments; certainly no margin will be left for any extraordinary expenses. If a man can tide over the first three or four years, he will find his income improved by the gradual payment of book debts, and ultimately secure a position both socially and financially good.

THE SMALL-POX HOSPITALS OF THE METROPOLIS.

AT a conference of metropolitan guardians, which was held on Monday, upon the subject of the expenditure of the Metropolitan Asylums District Board, an extremely important subject was incidentally referred to. The chairman, in his opening address, implied that one of the results of the large expenditure which had been incurred in connexion with the provision of hospitals by that Board was that the small-pox death-rate, instead of being largely reduced, as had been anticipated, had, on the contrary, been doubled; and later on the same contention was embodied in a motion, which, however, was not then pressed to a division. The statement is, we believe, not strictly accurate, but it is sufficiently near the truth to deserve very grave consideration. Dating the operations of the Metropolitan Asylums Board in the matter of small-pox isolation from January, 1870, when the Hampstead Small-pox Hospital was opened, we find that in the twelve years 1870–1881 the annual average small-pox death-rate per million of the population in London has been 458, whereas in the twelve years 1858–1869, preceding the operations of the Board, the rate was only 275. This fact is serious enough to call for inquiry as to its cause. We are aware that the former period includes the extensive epidemic of 1871, when as many as 7912 small-pox deaths were registered in the metropolis; but, on the other hand, we cannot, in view of the results elicited in the Fulham Hospital inquiry, ignore the fact that the Hampstead Hospital, together with the Homerton and the Stockwell Hospitals, opened early in 1871, may have had some share in contributing to the heavy mortality registered in that year. Besides which, it is unquestionable that although in 1874 and 1875 the metropolitan small-pox mortality reached the lowest ebb on record, small-pox in an epidemic form has since 1870 been more prevalent amongst us than in any former period since 1838. It is, of course, possible that the results, as judged of by statistics, may be different after the lapse of some further years; but at the present time we are face to face with the unexplained fact that synchronously with the establishment of large centres of small-pox infection in London there has been a marked increase in the mortality from that disease. This subject, we believe, has not yet met with the attention it deserves, and the whole subject of the mortality from small-pox in the metropolis calls for investigation at the hands of some competent and independent official.

THE ANATOMICAL SOCIETY OF PARIS.

THE oldest established of the Paris medical societies, and one which has contributed so much to the study of morbid anatomy, is the Société Anatomique, to which M. Cornil has just been elected president in succession to M. Charcot. In his few opening remarks M. Cornil adverted to the history of the Society, the work it has done, and that which it has to do. He reminded his hearers that the Society was founded at the commencement of the century under the auspices of Dupuytren and Laennec; that after an interval of ten years' silence it was reconstituted in 1827, when Cruveilhier was elected perpetual president. In 1875 M. Charcot succeeded to the chair, which he has now yielded to M. Cornil. The Society is the field where most of the young internes earn their laurels; and its Transactions are a rich storehouse of pathological facts.

INDIAN MEDICAL SERVICE.

WE regret much to find that the new arrangements with regard to the Civil Medical appointments in the Indian Service are not being worked in a manner likely to give satisfaction to the officers, or to create a contented and zealous department. The committee of the Indian Medical Defence Fund have called attention to the promotion of Brigade Surgeon Walker, which, although not in violation of the letter of the rules respecting promotion, is clearly, if the case be correctly represented, contrary to their spirit. It is stated that Brigade Surgeon Walker has been promoted over the heads of twelve brigade surgeons to the rank of Deputy Surgeon-General. As promotion to this grade is to be made "by selection irrespective of standing on the list," the step thus conferred could doubtless be justified by the Surgeon-General on whose recommendation it was made; but Dr. Walker was immediately nominated Surgeon-General in the North-western Provinces and Oudh. This confers only local rank, but carries with it 450 rupees monthly of additional pay. As we have already said, this is not a breach of the warrant, but surely it is contrary to the principles of justice by which such appointments should be regulated. It is difficult to understand how such a step can be justified as the appointment of a newly created Deputy Surgeon-General to one of the very few prizes open to that grade, over the heads of seven officers senior to him, all of whom were eligible to hold it. The object in adopting the rule of selection was to promote efficiency in the service; surely, then, before conferring on a newly promoted Deputy Surgeon-General one of the more highly paid and, presumably, more responsible appointments open to that grade, carrying with it also higher rank, it would only be reasonable to test his qualifications for the new duties which he is called on to perform. By a recent decision of Lord Hartington the Medical Defence Committee are prevented from bringing such a case under his consideration, and we own to a considerable amount of sympathy with him in that matter. But surely such a prohibition involves the responsibility of a careful supervision on his part to see that no act of injustice is committed by those entrusted with the working of the department. There is strong presumptive evidence of favouritism in this case, and, if any good grounds can be assigned for the course followed, it is clearly necessary, in the interests of the service, that these should be made known. We can conceive nothing more likely to impair the efficiency of the Indian Medical Service, and, by destroying its popularity, to check the supply of candidates for admission, than the belief that injustice may be inflicted upon its members with a high hand, while the remedy by an appeal is difficult, if not impossible. We trust that Lord Hartington will cause an inquiry to be made into the circumstances under which this appointment has been conferred, and either cancel it or make known the grounds upon which he considers it to be justifiable.

THE CRUELTY OF THE POOR-LAW SYSTEM.

IT is idle to append remarks to the findings of coroner's juries, reflecting on the reluctance evinced by relieving officers to dole out the charity of the community to the starving poor. These officers are not to blame. They are simply agents of the Overseers and Guardians by whom they are appointed. They act upon instructions which if they are not specific ought to be. The attempt to cast the onus of the cruelty practised by Guardians of the Poor upon their paid officials is directly opposed to the interests of reform. Let juries censure the guardians, not their agents, for the doing of deeds of official parsimony, which are a shame to the land. The poor-law system of England is rotten to the core. It is in practice, though not in principle, more oppressive now than in the worst days of Bumbledom, which

Charles Dickens so effectually exposed and denounced. Guardians are specially selected with an eye to their qualification for the dirty business of keeping down the rates by doing as little as possible for the poor, and driving away all but the most audacious vagabonds from the doors of the relieving offices. They are, we say, chosen to achieve these beneficent results, and they do their duty admirably. If the shrinking and suffering poor die, while hardened scamps and impostors live and thrive, that is an accident. The rates are kept down; what more do we want? If we do not like the result we must eradicate the cause of all this trouble and disappointment.

A FISH EXCHANGE FOR LONDON.

WE hail with great satisfaction an effort which is in progress to achieve by commercial enterprise, under the joint-stock system, what the Metropolitan Board of Works has failed to accomplish—namely, the provision of a fish market for London. The new company—the Fish Exchange (Blackfriars), Limited,—of which the Earl of of Onslow is chairman, has for its object the promotion generally of the trade in fish, with a view to place that excellent, but as yet inadequately appreciated, staple of food within reach of all classes at something approaching its normally low cost. The scheme in course of development will comprise many contributory works throughout the country, such as the provision of warehouses and shops for the storing and sale of fish, and vessels and barges for its proper conveyance to the principal centres; but the chief and first step will be the acquisition of a site near Blackfriars Bridge, and the erection of suitable market buildings with all needful appliances. It is desirable that the importance of this provision should be at once recognised, as it is understood that the Corporation of the City of London will, with a dog-in-the-manger policy, antagonise, and, if possible, block the progress of an enterprise that threatens to break down a monopoly which the civic Corporation has hitherto not merely enjoyed but abused to its own advantage and the very serious loss and injury of the community at large. "Billingsgate" is not a sacred institution, although the Corporation of London would seem to regard it—in common with other of its belongings—in that light, and would fain have public opinion and Parliament endorse the estimate. It is clearly for the public good that the civic monopoly should be broken down, and we hail the promotion of this Joint-Stock Company as the first application of the irresistible force of commercial enterprise to overturn it. Fish is a food of pre-eminently high value to mankind, and especially suitable for the needs of a population engaged largely in labour which taxes the strength of the nervous system. It is, or ought to be, also a cheap staple. It is intolerable that the vested interests of any Corporation should be allowed for one moment to stand between the consumer and the supply.

SCARLET FEVER AT ETON COLLEGE.

THE statements regarding scarlet fever at Eton are, we learn, much exaggerated. Only one Eton boy has the complaint, and, as it appeared a few days after he returned to school, and had been exposed to no infection there, he probably brought it with him. Four children of the masters, living in three different houses, also have had scarlatina in a mild form, one of whom, however, died after twenty-four hours' illness from diarrhœa and collapse. The children are supposed to have caught scarlet fever in London at the pantomime, as there is apparently nothing else to account for it. All these cases were at once removed to the sanatorium, half a mile from the college. The school itself and the town of Eton are in a very healthy condition.

ELECTRIC COMMUNICATION WITH GUARDS OF RAILWAY TRAINS.

AT the half-yearly meeting of the shareholders of the South-Eastern Railway Company, Sir E. Watkin is reported to have stated that "while the Company had over one thousand trains running per diem, all fitted with the electric communication, it had not been used once during the six months, *which showed that all the outcry for communication between passengers and guards had resulted in providing for a want that hardly existed.*" The italics are ours. We should like to know whether this statement is to prepare the public for the announcement that the electric communication is to be withdrawn from the trains of this Company. This communication is intended to enable passengers to communicate with the guard in case of accident, and in case of assault. Its introduction was advocated for the *prevention* of assaults, and the knowledge of such a means of calling assistance being at hand is a valuable deterrent against acts of violence in trains. The very fact that Sir E. Watkin mentions proves the success of the communication. It is certainly as yet premature to speak with confidence about its not being required in case of accident, and, indeed, there is abundant evidence that accidents do occur from time to time, of which both guard and engine-driver may be ignorant, and yet of so serious a nature that passengers' lives are imperilled. We are glad to know that all the trains of the South-Eastern Railway Company are provided with this electric communication, and we trust that no withdrawal of this protection to its passengers will be allowed by the shareholders, even if contemplated by Sir E. Watkin and the directors. But why are not all the trains of other Companies thus fitted up? On some lines only trains which travel beyond a certain distance—say twenty miles—without stopping have any means by which passengers can communicate with the guard. The public may fairly demand that in any train they should be able, on sufficient cause, to raise an alarm and procure assistance. There is another serious inconvenience to which railway passengers on some lines are still subjected—the absence of lamps in trains which run through tunnels. Provided that a train starts and arrives in daylight, it seems immaterial to railway managers for how long a time passengers may be kept in total darkness *en route*. This ought not to be.

THE CHOLERA IN MEXICO.

NO little apprehension is felt at San Francisco lest the cholera, which recently made its appearance at Chiappa, in Mexico, and has since extended northwards, should reach California. The districts which have been invaded by the epidemic are so near the forts of Guatemala and of Central America that there is considerable danger of its being brought to San Francisco and other ports of the Pacific by trading vessels. The cholera broke out at San Francisco in 1849, having been brought by a convoy of emigrants who had come across the plains from the Atlantic coast. The outbreak was soon got under then, but some of the poorer districts of the city are now so unhealthy that the result of a fresh epidemic might be much more serious. It is further to be noted that Chiappa, where the cholera first made its appearance in Mexico, is in the same latitude as the English West Indian possessions, where the cholera generally manifests itself first; so that it would be really interesting to ascertain whether the epidemic originates in the tropics of the Western hemisphere. One or two New York journals suggest that a competent medical man should be despatched by the National Board of Health to Mexico in order to study the march of the epidemic.

SCARLET FEVER CONVALESCENT HOME.

LAST year several efforts were made to aid Miss Mary Wardell in establishing a home for convalescents from scarlet fever, such efforts including a meeting at the Mansion House, and one at the Prime Minister's residence. The mere fact that all cases of infectious disease are necessarily excluded from ordinary convalescent homes would of itself suffice to show the need for such an institution; but when it is remembered how great a danger the scarlet fever convalescent is to the public generally, how impossible it is to secure and maintain isolation in the dwellings of the poor, and how sorely many London children who are recovering from scarlet fever stand in need of change of air, good food, and healthy surroundings, it becomes obvious that the necessity for some such provision is an urgent one. We are hence glad to find that the support which Miss Wardell has already received has enabled her committee to purchase a house for the purposes of the home. It is a roomy building in a high and healthy situation at Brockley Hill, between Elstree and Edgware, and some ten miles from the Marble Arch. The soil is a gravelly loam, the house stands in a well-isolated position in some four acres of land, and a supply of water can be obtained from the Colne Valley Waterworks. Considerable improvements are at once to be effected in the building, and it is confidently hoped that the home may be ready for the reception of some forty to fifty patients during the ensuing summer. It is also expected that Miss Mary Wardell, whose indefatigable efforts in this matter deserve the highest praise, will shortly proceed to the home in order to supervise the internal administration of the establishment.

STATE INTERVENTION IN THE CARE OF EPILEPTIC PATIENTS.

THE Government of Saxony has of late years given special attention to the above subject, and has now asylums for males and females where, for a sum equal to about ten guineas yearly, these patients are well cared for. It is contemplated to establish an institution for patients of a higher social grade, in which the annual payment would be about £27. There is also a special establishment for epileptic children. The Prussian authorities have not been less active in this direction, the Bielefeld establishment containing 400 patients. One of our German contemporaries refers with hopefulness to the attention which is now being given to this subject, and remarks that, on account of the particular treatment required, and the expense of procuring the remedies most usually employed, it is a duty of the State to take up the matter as a special question, affecting as it does a not inconsiderable number of the population of most countries.

UNQUALIFIED PRACTITIONERS IN THE COLONIES.

AN article protesting against unqualified practitioners in New South Wales appears in the *Australasian Medical Gazette* of November 15th, 1882. The people of this colony, through the absence of proper legislation, are absolutely without the means of knowing whether any man who chooses to practise medicine has had the training necessary to qualify him to treat disease. He has only to put a brass plate on his door and he becomes at once free to exercise all the rights and privileges which should be confined to those who have shown to a properly constituted authority that they have had the necessary education and passed such examinations as prove their fitness for practice. As it is, the medical evidence of unqualified practitioners is accepted in courts of law, their certificates as to the cause of death are received by the registrars, post-mortem examinations are made by them, and their evidence is taken in coroners' courts. The writer of the article concludes by urging every legally qualified practitioner to abstain from giving certificates as to the cause of death of any patients dying under his care, and suggests that, at the time of his refusal, he explain that it arises from no want of sympathy with the bereaved friends but that it is not necessary, as the district registrar must register without it on a properly tendered information, and that, as the certificates of quacks are accepted, the profession decline any longer to be placed on an equality with them. If this suggestion is acted upon unanimously and persistently by the profession, doubtless the passing of an Act will be hastened to remedy the present unsatisfactory state of things—one which exists in no other part of the world possessing a civilised government.

DR. OLIVER WENDELL HOLMES.

DR. WENDELL HOLMES has been appointed Emeritus Professor of Anatomy to Harvard University, and the report of the Committee of the Board of Bursars recommending this nomination refers to the fact that for more than thirty-five years Dr. Holmes had filled the chair of anatomy. "Taking great interest in his classes, he has met them with conscientious punctuality and never-failing enthusiasm. By the ingenuity of his demonstrations, the vividness of his descriptions, the brilliancy of his imagination, and the ever ready resources of his varied condition, he has given to the dry details of a difficult study a rare attraction; each lecture, prepared with exact fidelity, being delivered with all the freshness of a first occasion." The report goes on to refer to his services in the cause of medical education, sanitary reform, charities, and public improvements, and says "he has hastened the advance of rational medicine. He argued the practice of what is now technically called 'surgical cleanliness' before Listerism was broached. His writings add dignity to the profession of medicine, increase respect for the honourable and educated physician, and discourage the charlatan." His retirement from the university, the committee point out, "calls for the expression of profound regret, and for the fullest academic recognition of his long and zealous devotion to its interests."

CORONERS AND CAUSES OF DEATH.

IT might have been fairly anticipated that Section 16 of the Births and Deaths Registration Act, 1874, would have put a stop to such unsatisfactory verdicts in inquest cases as "Visitation of God," "Natural Causes," and such other words as do not signify the cause of death. The above-mentioned Section enacts that when an inquest is held on any dead body the coroner shall inquire of the "particulars required to be registered concerning the death," and shall give, under his hand, for registration purposes, a certificate "giving information concerning the death, and specifying the finding of the jury with respect to the said particulars, *and to the cause of death*." It is, however, an unfortunate fact that this enactment has not put an end to causeless verdicts, and an official and authoritative notification of the Section above referred to appears to be called for. Can such a verdict as "Natural Causes" be said to fulfil the obligations thus put upon the coroner and jury? A recent inquest in Plymouth affords a potent example of the objections to "causeless verdicts." It appears that a child died in Plymouth under conditions which rendered an inquest necessary, and from evidence (including that of a medical practitioner) given, it was clearly proved that the death was due to typhoid fever, probably induced by the insanitary conditions under which the child lived, and certainly accelerated by the neglect of the father to provide medical assistance.

Notwithstanding the conclusive evidence produced before the coroner as to the cause of death, the verdict returned was "Natural Causes;" and so far as the death register is concerned, no record exists of the death having been, as it undoubtedly was, a fatal case of typhoid fever. Such a failure of the expensive machinery of a coroner's inquest is much to be regretted both from a sanitary and statistical point of view.

M. FALLIÈRES AND M. DUCLERC.

OUR Paris correspondent writes:—M. Fallières, Home Minister and President of the Ministry, such as it is in its present mutilated or incomplete state, was taken suddenly ill on Jan. 30th while in the act of making a speech at the tribune in the Chamber of Deputies. The illness is attributed to an attack of syncope resulting from weakness brought on by mental strain and want of sleep, to which he has been subjected since his accession to the Premiership about a week ago. The medical deputies who were present, among whom was Dr. Lionville, immediately attended to the patient, and after a rest of about an hour and a half the patient was removed to his own residence, where he has been enjoined to keep to his bed until he be considered in a fit state to resume the responsible and arduous duties of his office.

M. Duclerc, who has just quitted the Ministry, has been laid up for more than a week from a pulmonary affection. He is now convalescent, but his medical attendants, Drs. Damaschino and Potain, have reported in their last bulletin that the patient is still very weak, and that absolute rest is still necessary for his recovery. The political atmosphere of France would appear to be anything but salutary, if one may judge from the number of men, apparently robust, who have succumbed under its influence.

WESTON-SUPER-MARE HOSPITAL.

AT the annual meeting of the subscribers to this institution, held on the 22nd ult., a resolution was carried abolishing the office of assistant medical officer. Hitherto there have been ten beds for surgical cases, which have been entrusted to two surgeons. The out-patients have been attended to by the assistant house-surgeon. It has now been decided to elect all four of the assistant medical officers to the post of honorary surgeon. The object of the change is to give the surgeons in the hospital experience of such cases as can be best, and only, treated in a hospital. This, no doubt, is a worthy object. But it seems to us that to divide ten beds between four surgeons is to reduce the advantage of having the care of in-patients to such exceedingly small proportions as to make it nearly if not quite valueless from this point of view. It would be better to allot the beds to the four surgeons in turn, but to this there are other grave objections. It is well that hospitals should train up junior men to step into the places left vacant by the retirement of their seniors; this can only be done by out-patient work, by lending assistance to the seniors, and also by the careful study of the cases. The newly adopted plan appears to fail in just these points, and we should be glad to see it modified.

DR. VAN BUREN.

WE regret to learn that Dr. Van Buren of New York continues seriously ill, and that he has been compelled to resign the chair of Surgery at the Bellevue Hospital Medical School, which he has held with great advantage to the school and distinction to himself. Dr. Van Buren is best known in this country as the joint author with Dr. Keyes of a work on the Surgical Diseases of the Genito-urinary Organs. We believe there will be several candidates for the chair he vacates.

THE TREATMENT OF INFLAMMATION.

THE diapedesis of white corpuscles which occurs in inflammation is produced, according to Cohnheim and Hering, as a sort of mechanical filtration through the wall, but, according to Binz and others, is a vital process intimately connected with the irritability and chemical integrity of those structures. The opinion held as to the nature of the process must, as Binz has lately pointed out, modify considerably the therapeutic method employed. If there is only a mechanical extrusion of the cells through the wall of the vessel, it is of paramount importance, in all internal inflammations, to lessen the blood pressure. If, on the other hand, there is an independent exit of the corpuscles which adhere to the wall of the dilated vessels, the aim of therapeutic measures must be to lessen their activity. Binz asserts that the white corpuscles only escape when the red corpuscles are passing by the stationary pale ones, and only so long as the latter possess the power of adhering to the wall, and the passage seems to be attended by changes of form similar to those which are presented by the corpuscles outside the vessels. He states that the diapedesis is stopped if the vessel is tied, and it is stopped also on both sides of the ligature, and therefore where the blood pressure is completely arrested as well as where it is in full force. It also stops when the colourless cells are paralysed by any agent, such as quinine, eucalyptol, iodoform, or salicylic acid, without the heart or the vessels presenting the slightest alteration.

PRESCRIBING CHEMISTS.

MR. H. M. ANDREWS, a member of the Pharmaceutical Society, was placed in an unsatisfactory light by the evidence of Mrs. Miller, of Tottenham, before the coroner, on Jan. 24th, touching the death of her child. Mrs. Miller thought that Mr. Andrews was a fully qualified medical man. Possibly this was not his fault. But what *was* his fault was in prescribing for a child obviously very ill, and, in fact, within a day of its death. Mr. Andrews's long experience in business ought to have served him better than on this occasion. The medical man called in on the day of the child's death admitted some difficulties in the case, and was not severe on Mr. Andrews's treatment. But what are we to think of a chemist who boldly undertakes a case in which a medical man sees difficulties, and not only so, but prognosticates a speedy recovery?

REPORTS OF THE MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

IT has long been a cause of complaint that the reports of the medical inspectors of the Local Government Board could not be obtained by purchase in the same way as ordinary Parliamentary papers and other official documents, and we are hence glad to find that for the future "certain of these reports"—a description, doubtless, having reference to those of any general or scientific interest—will be placed on sale, and will be procurable at either of the three official publishers of the Board—namely, Messrs. Knight and Co., 90, Fleet-street, E.C.; Messrs. Shaw and Sons, Fetter-lane, E.C.; and Messrs. Hadden, Best, and Co., 227, Strand, W.C.; and also from Mr. P. S. King, Parliamentary bookseller, King-street, Westminster, S.W.

THE NAPPER TESTIMONIAL.

THE presentation of the testimonial to Mr. Albert Napper, which will consist of a handsome silver salver, is announced to take place at No. 1, Adam-street, Adelphi, on Saturday, Feb. 10th, at 4 P.M. Mr. Erichsen, F.R.S., will preside on the occasion.

BACTERIA.

IT is well known that bacteria are widely distributed and find entrance into the living organism in health as well as in disease. M. G. Colin recently communicated to the Académie des Sciences a memoir on this subject, in which he arrives at the following conclusions:—There is no part of the respiratory and digestive apparatus in which bacteria are absent, under normal circumstances, and in some localities they are met with in enormous quantities. But normally all these bacterial liquids are inoffensive. The microscopical organisms confer no virulent or toxic property. The liquids only become dangerous after some degree of putrefaction, and their effect is the same for all: the production of septicæmia. The microbia and their germs, which are found in the respiratory or digestive tracts, are probably, in the living animal, carried into many localities by diffusion-currents, and certainly in the dead body they reach all parts, and develop there if they meet with favourable conditions.

PORRO'S OPERATION IN ITALY.

DR. BIANCHI reports (*Gazzetta degli Ospitali*, Jan. 24th, 1883) a case in which Dr. Barsotti performed Porro's operation, at Lucca, on Dec. 28th, 1882. The patient was rickety, and suffered from pneumonia and mitral insufficiency. The deformity of the pelvis was so great as to render any process of embryotomy impossible. The operation for the removal of the uterus and ovaries presented no unusual difficulty, but the mother died from exhaustion the following day. The child (male) survived, and was in good health at the end of a fortnight. According to Dr. Negri, Porro's operation was performed in Italy thirty-eight times from May, 1876, to May, 1882; fourteen of the women recovered and twenty-four died. It would also be interesting to know how many of the children survived.

THE STATE OF THE STREETS.

WE have repeatedly called attention to the disgraceful state of the streets of the metropolis and other large cities in respect to the parade of immorality; and it is gratifying to find that the appeal we have made to the public sense and instinct of decency has not been wholly without effect. Instructions would seem to have been given to the police, and they are taking action in the matter. As yet, unfortunately, little has been done, too little to produce any recognisable effect in leading thoroughfares such as the Strand.

AN owner of certain premises in Marlborough-row, St. James's, was last week required by a magistrate's order to comply within a week with a notice under the Nuisances Removal Act, 1855, to provide a proper supply of water for the use of the occupants of the houses in question. This case is invested with more than ordinary interest by the fact that the property owner is a vestryman of the parish, and that the vestry clerk prosecuted, on the information of the inspector of nuisances. It is somewhat refreshing to find the conviction of the need of a good supply of water by poor people thus brought home to the mind of a vestryman through the instrumentality of the clerk of the board in whose deliberations he was elected to assist.

THE Leicester Board of Guardians, having declined to carry out the compulsory clauses of the Vaccination Act, have received a letter from the Local Government Board asking the reason of their action, or rather inaction. The guardians have replied, setting forth their objections to the statute, and it remains to be seen what course the Central Board will adopt.

A DRESS has recently been exhibited at the rooms of the National Health Society, Berners-street, intended for the protection of sanitary visitors, nurses, and others who are compelled to enter the apartments of persons suffering from infectious disease. It is made of glazed mackintosh, and completely covers the wearer, only the hands and face being left unprotected. It is stated that by the use of this garment the necessity for changing the ordinary attire is removed, and that the danger of communicating the disease is obviated. As often as may be convenient it may be cleansed with disinfectants. A respirator formed of medicated cotton-wool between two layers of thin net is added to the costume. After being used the cotton-wool is burnt and the net washed.

FOR violation of the Births and Deaths Registration Act, 1874, a medical man was, a few days ago, fined £5 and costs at Marlborough-street Police Court. The defendant admitted that he did not attend the deceased at the time of her death, although she had been his patient formerly. The certificate was given, he said, at the urgent solicitation of the friends of the deceased. This is probably the explanation of most of the cases of the kind which are brought under public notice. But it offers no excuse for the infringement of a just and wholesome enactment.

AT the meeting of the St. Pancras Board of Guardians on the 25th ult. a letter was read from the Local Government Board stating that their inspector, Dr. Brydges, had visited the workhouse to inquire into the alleged excessive consumption of alcoholic drinks by the inmates. There were about 600 infirm and aged who were allowed half a pint of beer each daily—not by way of medicine, but for the purpose of prolonging life. Under the circumstances, the Local Government Board could not interfere with the discretion of the medical officer.

DR. M'KEOWN, in his statement which was read at the annual meeting of the Ulster Eye, Ear, and Throat Hospital, on the 26th ult., said that in no place with such a large number of students is there such a poverty of material for clinical instruction as in Belfast. He feared that this is entirely owing to a desire to attract students in large numbers by lowness of fees, and to repel any movement towards increasing the facilities which would, at the same time, entail a little increased cost.

DR. AUSTIN FLINT has recently delivered a course of lectures on Auscultation and Percussion in Philadelphia. He has at these lectures demonstrated that most of the various sounds elicited by percussion and heard in auscultation may be produced and studied artificially with great ease. In his closing lecture he recommends that students should be made familiar with the sounds in this way, their character and mode of production, before passing on to actual clinical demonstrations of them.

DR. BAYLIS has been compelled by ill-health to resign his post as medical officer of health for the West Kent Combined Sanitary District. At the meeting of the delegates of the various authorities at which the resignation was reluctantly received, many kind things were said of their medical officer, and it was also decided that the salary of Dr. Baylis's successor should be £800 per annum.

IT is reported from Behur that in a large tract of country to the North of the Ganges the poppy crop has been severely injured by blight, and that a serious loss in the opium returns for 1882–83 is apprehended.

THE annual report of the general committee of the Royal Maternity Charity states that during the last year—the 126th of the charity's existence—3000 women have been delivered and relieved at their own homes, and with the loss, by death, of only 7 mothers. There have been 2 cases of triplets, and 37 cases of twins. The midwives have called in the aid of, or consulted, the physicians in 150 cases; so that the large number of 2850 cases have been treated by the midwives alone.

A SHORT time ago the librarian of the Faculty of Physicians and Surgeons of Glasgow made an interesting "find" in a dusty corner of the library, having come across a set of manuscript notes of John Hunter's lectures on Surgery, taken by a pupil. These notes are shorter than some other sets known to be extant, but they are in a good state of preservation, and the interest which attaches to them is of course very great.

ARRANGEMENTS have been made for the meeting of the Sanitary Institute of Great Britain to take place at Glasgow in the autumn of the present year. The invitation proceeded from the Lord Provost of the city, and was made on behalf of the leading interests of Edinburgh, Greenock, and the adjacent towns, as well as of Glasgow.

A MEMORIAL in granite and Sicilian marble to the memory of the late Deputy-Inspector-General George Birnie Hill, R.N., who died whilst serving in the Royal Naval Hospital, Malta, has been erected in the Naval Cemetery there, by his friends in the service, as a mark of esteem and respect.

DR. THOMAS DWIGHT has been appointed to fill during the remainder of the year the chair of Anatomy in Harvard University, rendered vacant by the resignation of Dr. Wendell Holmes.

"ALPINE Health Resorts" has been chosen by Dr. Symes Thompson as the subject of his Gresham Lectures, to be delivered on Feb. 5th, 6th, 8th, and 9th, at Gresham College.

DR. SAMUEL M'DD, of Maryland, whose professional services to the assassin, Wilkes Booth, led to his arrest and imprisonment, has just died.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5918 births and 3703 deaths were registered during the week ending the 27th ult. The annual death-rate in these towns, which had been equal to 21·8, 22·4, and 23·4 per 1000 in the two preceding weeks, declined again to 22·4 last week. The lowest rates in these towns were 12·7 in Brighton, 16·1 in Leicester, and 16·4 in Bristol. The rates in the other towns ranged upwards to 29·3 in Blackburn, 29·9 in Plymouth, 30·5 in Hull, 30·6 in Sunderland, and 31·1 in Liverpool. The deaths referred to the principal zymotic diseases in these twenty-eight towns were 411; 129 resulted from whooping-cough, 87 from scarlet fever, 59 from "fever," principally enteric, 52 from measles, 37 from diarrhœa, 36 from diphtheria, and 11 from small-pox. No deaths from any of these zymotic diseases were returned in Brighton, whereas they showed the largest aggregate fatality in Liverpool, Plymouth, and Blackburn. Whooping-cough caused the highest death-rates in Cardiff, Hull, and Plymouth. Scarlet fever in Sheffield, Blackburn, and Leeds; measles in Liverpool; and "fever" in Preston, Liverpool, and Blackburn. Of the 36 deaths from diphtheria, 24 occurred in London. Small-pox caused 8 deaths in London, and one each in Nottingham, Sheffield, and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals, which had been 99 and 93 on the two preceding Saturdays, rose to 101 at the end of last week. Twenty new cases of small-pox were admitted to these hospitals during last week, against 32 and 11 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London were 369 last week, and were 156 below the corrected weekly average. The causes of 99, or 2·7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner; the proportions of uncertified deaths were largest in Salford, Oldham, Huddersfield, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 26·8 per 1000 in each of the two preceding weeks, rose to 27·3 in the week ending the 27th ult.; this rate exceeded by no less than 5·3 the mean rate last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 102 and 111 in the two preceding weeks, further rose to 118 last week, and were equal to an annual rate of 5·0 per 1000; this zymotic rate was just double the rate from the same diseases in the large English towns. The largest proportional fatality of these diseases occurred last week in Glasgow and Dundee. The deaths from whooping-cough, which had been 44 and 51 in the two previous weeks, were 52 last week, and included 20 both in Glasgow and Dundee; the death-rate from this disease in Dundee was most exceptionally high. The 19 deaths referred to diphtheria also exceeded the numbers in recent weeks, and included 10 in Glasgow, 5 in Aberdeen, and 3 in Greenock. The 15 fatal cases of scarlet fever were also more numerous, 7 being returned in Glasgow and 6 in Edinburgh. All the 8 deaths from measles, and 6 of the 10 deaths referred to "fever," were returned in Glasgow; the deaths from "fever" also included 2 in Paisley. The deaths referred to acute diseases of the lungs in the eight towns, which in the five preceding weeks had ranged from 228 to 159, rose again last week to 176, and exceeded by no fewer than 75 the number from these diseases in the corresponding week of last year. The causes of 129, or more than 20 per cent., of the deaths registered last week in the eight towns were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·9, 29·4, and 25·5 per 1000 in the three preceding weeks, rose to 34·9 in the week ending the 27th ult. During the first four weeks of the current quarter, the death-rate in the city averaged 30·4 per 1000, against 21·4 in Edinburgh and 20·9 in London. The 234 deaths in Dublin last week showed an increase of 63 upon the number in the previous week; they included 8 which were referred to "fever," 8 to whooping-cough, 3 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus 19 deaths resulted from these principal zymotic diseases, against 19 and 20 in the two preceding weeks; they were equal to an annual rate of 2·8 per 1000, while the rate from the same diseases was equal to 2·3 in London and 3·3 in Edinburgh. The deaths referred to "fever," which had been 4, 5, and 7 in the three previous weeks, further rose to 8 last week, and were equal to a rate far exceeding that which prevailed either in London or Edinburgh. The 8 fatal cases of whooping-cough, however, showed a decline from recent weekly numbers. The causes of 52, or more than 22 per cent., of the deaths registered during the week were not certified.

MEDICAL UNION SOCIETY.—The first annual meeting and conversazione of the members of this Society were held at the Holborn Town Hall on Wednesday. Mr. Henry Power presided, and Dr. B. W. Richardson delivered an address, in which he set forth the importance of preventive medicine. A goodly number of leading members of the profession were present, and the pleasant gathering afforded a happy augury of future reunions in connexion with the Society.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL has just completed its 130th year of existence, and by the report read at the annual meeting held this week it appears that upwards of 100,000 poor women have participated in the benefits of the charity.

Correspondence.

"Audi alteram partem."

"ASSOCIATION OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS."

To the Editor of THE LANCET.

SIR,—With reference to your article of the 6th inst., regarding the recently formed Association of Fellows of the Royal College of Surgeons, the question is how far the idea is correct that a large majority of the Fellows desire to vote by proxy at the annual election of the Council, and if the welfare of the College might not be enhanced supposing the governing body were to allow the Fellows to have some more direct influence in its management. If, as many of the Fellows believe, valid reasons can be adduced in favour of such a change, evidently the first thing to be done is to get the charter of the College altered; and this can only be effected through the Council. It is, however, difficult in existing circumstances to understand how the Council can be influenced to move in this direction, unless through representations made to it by the collective voice of an Association such as that which has now been formed. It was thought desirable that the members of this Association should assemble during the annual meeting of the British Medical Association, because at that time many of the Fellows are gathered together for the express purpose of attending to subjects of the kind. For four or five days these gentlemen may be said to be in session, and they are prepared to deliberate on various subjects connected with the interests of the profession in a manner which they could not possibly do at any other period of the year. So far as my memory serves me, THE LANCET has by no means invariably discouraged the idea that it is desirable to modify the constitution of the College on lines somewhat similar to those above indicated.

The Council of the College have almost uncontrolled power over a large income derived from the profession, and they have a prevailing authority over the education of medical men in this country. Although I have no reason to suppose that the members of the Council exercise any direct influence upon the annual elections, nevertheless it is probably true that it is impossible for a Fellow to obtain a seat on the Council unless he happens to be acceptable to its members. So that, practically, the Council and the Courts of Examiners are not far removed from being a self-elected body. Institutions of a somewhat similar character with respect to other branches of learning have found it advantageous to their interests to widen the exclusive circle in which they had been accustomed to move; in fact, in these days the governing bodies of our educational corporations must, to a large extent, appreciate, and, if they are to flourish, move in accord with, the wants and sentiments of their constituents. The object of the Association now formed will be useful as its numbers increase, and exercise their combined influence on the Council, impressing upon that body not only the desirability of altering their charter so as to allow Fellows to vote by proxy at the annual elections, but also so as to draw into more intimate co-operation the whole of the members of the Corporation.

I am, Sir, yours faithfully,

January, 1883. C. MACNAMARA.

*** We may assist Mr. Macnamara's memory, so far as to assure him that not only has THE LANCET "by no means invariably discouraged the idea that it is desirable to modify the constitution of the College," but it has invariably and persistently, for more than half a century, encouraged the idea and supported it with all the arguments and influence at its command. THE LANCET has, however, reason to believe that it represents the opinion of a large number of the independent Fellows of the College when it maintains that the consideration of any proposed changes in the constitution of the College may be most appropriately undertaken in London at the annual festival of the Fellows in July.—ED. L.

"THE CASE OF POLICE CONSTABLE SANSOM."

To the Editor of THE LANCET.

SIR,—Fair and candid as your criticism on the case of poor Sansom undoubtedly is, there is one point on which I should like to offer a word of explanation; you most properly draw attention to the fact that the deceased's urine was not examined. Now, it is my invariable practice to see all excretions of my patients if I can; and your surmise that in this case no urine was obtained is perfectly accurate.

On Thursday, December 29th, after using the thermometer, finding no water under the bed, I asked Sansom where it was; he replied that he had passed it into the other men's things; this, of course, was useless for analysis, and I was reluctantly obliged to leave without satisfying myself in a particular, of the importance of which, I trust, I am fully sensible. Had there been a proper sick-room attached to the station this difficulty could not have arisen, but as no separate accommodation exists for sick men, and so long as there is no educated nurse to watch, it is impossible for medical men in every case to form an opinion that will be satisfactory to themselves and their patients.

I think that the opinion of the jury, that I had been guilty of "gross neglect," will hardly be confirmed by the profession, as I saw the deceased man on Sunday, Wednesday, Thursday, and Friday; on the latter days without receiving any summons. On Tuesday he was seen by Mr. Wheeler, a surgeon, and neighbour of mine, who, without any communication with me, came to the same conclusion as to the symptoms as I had. May I also mention that Sansom did not go on duty after Monday night; he was put on the sick list on Tuesday after having been seen by Mr. Wheeler.

You remark, "that few medical men have known a case of diabetes fatal within five days of the first application for medical advice." This is, I believe, perfectly true. In my opinion the four ounces of plum pudding eaten by the deceased man on Thursday evening was the exciting cause of the acute attack of diabetes from which he died on Friday, and this, I think, may be confirmed by Dr. Jones, resident physician at St. Thomas's Hospital.

Your suggestions on the subject of a second opinion I fully endorse. I need not tell my professional brethren what a comfort it would have been to have had a second opinion in this, as in every other obscure and difficult, case; but situated as I am, having to deal with cases that are not always above suspicion, and where my honest endeavours to do justice between the public and its servants are often misinterpreted, an appeal would be doubly satisfactory. No one has a higher opinion of the London police than myself; but as long as there are men who seek to make sickness a cloak for laziness, a divisional surgeon's position must be a most delicate one, and everyone of us, I believe, would warmly welcome the appointment of an easily obtained second medical officer to stand between us and those who consider themselves to have been treated with undue harshness.

I am, Sir, yours sincerely,

C. CORBETT BLADES.

Kennington-park-road, S.E., Jan. 29th, 1883.

*** The above letter of Dr. Blades should make an end of much unreasonable criticism to which he has been subjected. It confirms the impression produced on us by his evidence. It shows that what was exceptional in the case of the constable Sansom was, not the conduct of the medical man, but the acuteness of the disease. It further shows that he looked for the urine in which the secret of the case lay, and was foiled in finding it by the inadequate arrangements of the station. Dr. Blades displays the favour of a sensible man to our suggestion that in the police arrangements there should be provision, in doubtful or difficult cases, for easy reference to a second opinion in the district.—ED. L.

To the Editor of THE LANCET.

SIR,—In your able article of last week's number you suggest that in the case of Police Constable Sansom there should have been had a second opinion. Now, perhaps, you are not aware that all divisional surgeons have orders to call in the aid of their chief, Mr. Timothy Holmes, in cases requiring a consultation. Since the

appointment of that gentleman to the post of Chief Surgeon to the Metropolitan Police I have availed myself of the opportunity of a consultation in two instances only, although I have held the appointment of divisional surgeon for nearly thirty years. I think good would be done if you were to suggest the necessity of having a dwelling, separate from the section house, set apart and distinct for the reception of patients who are likely to have any of the exanthematous diseases, &c., before such can be diagnosed and sent to the fever hospitals.

I am, Sir, yours obediently,

Jan. 31st, 1883. DIVISIONAL SURGEON.

THE ALLEGED DEATH FROM VACCINATION.

To the Editor of THE LANCET.

SIR,—With reference to the above case—the death of a child born and vaccinated here, seven days old, by me, and upon which you commented last week—will you allow me to say a few words.

The mother of the deceased stated that the child was an eight months' child, that it was a puny child, &c.; and her statements appeared to have very considerably moulded the opinions of the medical gentlemen who gave evidence on the case. As a matter of fact, the child had every appearance of having been born at the full time; it was a healthy child, and weighed seven pounds. On the day of the vaccination (seven days after birth) the child was perfectly healthy; on the day of inspection (eight days afterwards) it was also healthy, as was also the vaccinated arm. The mother with her child took her discharge from here on that day; and for what took place between that time and the date of its death I am not responsible.

Perhaps if the conditions under which the child lived when taken away from here, and also the mother's care of the infant and of its arm, had been discovered, other causes of infantile mortality in illegitimate circles might have appeared. I am, Sir, yours faithfully,

W. M. DUNLOP,
Resident Medical Officer, St. Pancras Workhouse.

Jan. 27th, 1883.

ACTION OF POTASH ON ALBUMEN.

To the Editor of THE LANCET.

SIR,—I am far from desirous of entering the arena of controversy. Still I would venture to submit to the notice of your readers a few experiments on the action of a potassic hydrate solution on ov-albumen. A solution of pure potassic hydrate was prepared, the water employed for the purpose being twice distilled, and absolutely free from ammonia. The solution was boiled for half an hour, filtered through asbestos, and again boiled for an hour. It had a specific gravity of 1·5488.

Experiment 1.—Some ov-albumen was treated with two to three times its bulk of the potassic hydrate solution. Before heat was applied a small quantity was tested with a solution of lead acetate, with no appreciable result. To the remainder of the solution heat was applied, and it was allowed to boil for two minutes. On being again tested with the lead acetate solution a copious black precipitate of lead sulphide was thrown down. During the application of the heat a piece of lead paper, and a second piece of paper moistened with nitro-prusside of sodium, were placed in the neck of the flask, but the results were entirely negative.

Experiment 2.—Some ov-albumen was treated with about ten times its bulk of the potassic hydrate solution. It was tested with a solution of lead acetate at various stages with the results indicated:—(*a*) Cold. Result: No action. (*b*) At the moment of its registering 100° C. Result: A slight yellow discolouration, but no precipitate nor blackening of the solution. (*c*) After five minutes' active boiling. Result: The solution became of a reddish-brown colour. (*d*) After ten minutes' boiling. Result: A slight but definite precipitate of a reddish-brown colour. (*e*) After fifteen minutes' boiling. Result: A precipitate of a dark-brown colour. (*f*) After thirty minutes' boiling. Result: A dense black precipitate proved to be lead sulphide. (*g*) After two hours' boiling. Result: Similar in all respects to what occurred after thirty minutes' boiling.

Throughout these experiments no traces either of sulphuretted hydrogen or of ammonic sulphide were set free from the solution. The conclusions I submit are manifest:—

1. That by the action of a boiling solution of potassic hydrate on ov-albumen an alkaline sulphide is formed.
2. That this alkaline sulphide is not ammonic sulphide.
3. That with strong solutions of albumen the formation of the sulphide takes place rapidly, but that with dilute solutions it occurs more or less slowly, according to the quantity of albumen present.

Lastly, I would notice that the series of tints observed in Experiment 2—viz., yellow, reddish-brown, black—corresponds to the tints observed when sulphuretted hydrogen is first passed through a dilute lead solution—i.e., during the short interval that elapses before the black lead sulphide becomes actually formed.

I am, Sir, your faithful servant,

Mandeville-place, W., Jan. 24th, 1883. C. MEYMOTT TIDY.

To the Editor of THE LANCET.

SIR,—It is to be regretted that the controversy respecting the action of potash on albumen has not been carried on in a more scientific spirit.

In the case of egg albumen boiled with potash a sulphide reaction is obtainable after a few minutes, whether the lead solution be added at the same time as the potash or afterwards. In a short time, however, depending entirely on the strength of the potash solution employed, it is impossible to get the sulphide reaction with a lead salt. We do not know the state of combination of the sulphur in albumen, but from recent conclusions by Loen and Bokorny it would seem not to be very intimately connected with the albumen molecule, and probably undergoes some change by the action of the potash. This change is not, as far as I can make out, due to oxidation to sulphate. It is certainly not due to volatilisation of sulphur as ammonium sulphide; for the sulphur may be found afterwards on fully oxidising the alkaline solution by chlorine as sulphate. Mr. Blyth has surely made some mistake respecting the volatility of ammonium sulphide in the presence of free potash. Ammonia is certainly given off, but not a trace of sulphur escapes the potash, which could scarcely *a priori* be expected. We know so little respecting the constitution of albumen, either of animal or vegetable origin, that further careful investigations of its behaviour under the action of comparatively mild reagents are very desirable. Assuming the sulphur to exist in albumen in the natural state in the form of SH, it is not improbable that by the action of potash in presence of air the sulphur would enter into more intimate combination, very probably as a *sulphone*, Group SO, in which state it would not give a reaction with lead salt. On oxidation it would, however, give sulphate, and on reduction with nascent hydrogen a sulphide. And this reaction is given, as a matter of fact, by the potash solution of albumen boiled in contact with air until it ceases to give the lead precipitate. On generating hydrogen by the addition of metallic zinc to the alkaline solution, and afterwards acidulating the sulphide, reaction is again obtained.—I am, Sir, yours faithfully,

M. R. HODGKINSON.
Normal School of Science and Royal School of Mines, Science and Art Department, South Kensington, S.W., Jan. 24th, 1883.

"LARGE AND SMALL ASYLUMS."

To the Editor of THE LANCET.

SIR,—I desire to protest against the very unkind things that so frequently appear in THE LANCET against my branch of the profession. Such things as are said by the general public about both the legal and medical professions, but which in that case are always understood to have a sufficiently humorous element to remove their sting. But when applied in such a leading professional organ as THE LANCET to any branch of the profession, they can only admit of a serious interpretation. My interpretation is that your editorial ear has been unworthily secured by some one with a grudge against us. The latest of these covert attacks is in an annotation in your last number on "Large and Small Asylums," where you say a large number of us are honestly (we are at least honest) impressed with a notion that disease of the brain causing mental derangement is always incurable, and

infer therefrom that we shall object to any increase of the curative resources of asylums. Such an absurd imputation, I think, refutes itself without any remark. We, of course, believe that a portion of brain destroyed by embolic softening, or by a clot, can no more be restored by any possible resources of medicine than can an amputated limb be made to grow again from the stump. We believe that the wasted brain cells in general paralysis can no more be restored than can an organ destroyed by cancer be renewed, though we do believe that the essential morbid action in general paralysis might possibly by some form of treatment be arrested, just as cancer may possibly admit of arrest by medical means, though in neither the one case nor the other do we know what those means may be, if perchance there be such.

If we say that idiocy is incurable, that destructive lesions of the brain are also incurable, that a large percentage of cases of epilepsy, after resisting the efforts of the general practitioner for years, are incurable when sent to us, that much chronic insanity is in the same position—we also assert that acute insanity is eminently curable, nearly as much so as pneumonia, and that there are cases of all intermediate grades of curability between these, and that in the intermediate area, and indeed throughout, there is abundant room for further research and an enlargement of our curative resources; and in saying all this are we not saying precisely what the general practitioner says about all cases of disease that he has to treat?

I am, Sir, yours obediently

T. A. CHAPMAN,
Medical Superintendent.

County and City Asylum, Hereford, Jan. 29th, 1883.

*** Our correspondent is wholly wrong in his assumption that we have any wish to depreciate the earnestness or clinical enterprise of the medical superintendents of asylums. We only condemn the prevailing tendency to treat insanity as in the main "incurable."—ED. L.

THE HOUNSLOW TRAGEDY.

To the Editor of THE LANCET.

SIR,—Whilst thanking you for your insertion of my letter on the above, may I ask you to publish the enclosed from the brother of poor Dr. Edwardes.

I am, Sir, yours truly,

JOSEPH ROGERS.

23, Soho-square, Jan. 31st, 1883.

[COPY.]

DEAR SIR,—I write to thank you most warmly for your kind and practical letter in THE LANCET of the 27th inst. The fact that the medical profession appears to be as unanimous in its approval of the finding of the jury as the public generally is an inexpressible consolation to us who mourn, for I consider that only medical men can view such a case as it should be viewed. But it is my duty to write to you at once in reference to the fund proposed to be raised for the benefit of MRS. Whitfield Edwardes and her children, in order to acquaint you with the fact that, fortunately, they are amply provided for. Mrs. Whitfield Edwardes desires me to express to you her deep sense of your consideration for her.—Believe me, dear Sir, yours most sincerely,

ED. J. EDWARDES, M.D. Lond.

17, Orchard-street, Portman-square, W., Jan. 31st, 1883.

NOTIFICATION OF INFECTIOUS DISEASES IN GLASGOW.

To the Editor of THE LANCET.

SIR,—In the communication which you have published on this subject your correspondent gives a very fair account of the controversy. In one of his statements, however, there is a *suggestio falsi*, which is doubtless unintentional. He says that "almost the only exponent of the official side of the question was Dr. J. B. Russell, who fought stoutly for his notification clauses. *Professional opinion, however, was dead against him.*" The words in italics (which are mine) may be correct in so far as they apply to the opinion expressed at the meeting of the Philosophical Society, but there are, I venture to say, not a few medical practitioners in Glasgow whose opinions coincide with those of Dr. Russell in this matter. I admit that if the settlement of this vexed question rested with the medical profession alone it is probable that the householder would be compelled to report, but over-ruling the voice of the medical profession there is the force of public opinion. On this question it is yet an unknown quantity, but I believe that in the end it will be found ranged on the side of those who think that special knowledge should be coupled with an increased weight of responsibility.

At present there are many practitioners in Glasgow who report to Dr. Russell the cases of infectious disease which fall under their notice. My own experience, which, although not large, has been well observed, has made me conscious of the fact that patients, and the friends of patients, are generally intelligent enough to understand the reasons I am in the habit of giving when I inform them that I intend to report their cases to the sanitary office. I am not aware of the practice of others in this respect, but I never report a case without first informing the patient, or the patient's friends, that I am about to do so. That I meet with opposition in the performance of this duty, for I consider it to be such, is a matter of course, but as a rule it is an opposition born rather of surprise than of stupidity. Dr. Russell, who is invariable in the courteous consideration which he shows for the interests of medical practitioners, sends to those who desire them stamped and addressed envelopes, and printed forms, which simplify matters as much as possible. For my part, I am grateful to him and his carefully instructed and intelligent district inspectors for ready assistance in cases of fever, and I am conscious of having in no degree impaired the dignity of my profession, or injured in any particular the interests of my patient, by calling for their aid in the prophylaxis of disease. I should most certainly, however, consider that my position as a member of the medical profession would be seriously lowered in dignity and usefulness if the law were to tell me to stand aside while the uninstructed took the initial step in the best and most scientific part of medical practice.

I am, Sir, yours truly,

ROBERT MACPHERSON.

Glasgow, Jan. 28th, 1883.

NOTIFICATION OF INFECTIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—I am directed by the Council of the Irish Medical Association to forward you the enclosed copy of a resolution passed by them.—I am, Sir, yours faithfully,

THOMAS GICK, Assistant-Secretary.

[COPY.]

"Resolved: That this Council repudiates the unfounded imputation upon Dublin physicians contained in a statement publicly made by Dr. Littlejohn, Medical Officer of Health for the City of Edinburgh, in a recent letter to the *Glasgow Herald*, to the effect that 'the profession [in Dublin] protests loudly against a loss of fees where any of their patients, however badly housed, are removed to hospital so as no longer to be a source of danger to the community.' That this Council expresses its surprise and regret that Dr. Littlejohn should have publicly attributed such motive to the members of his own profession in Dublin, without attempting in any way to substantiate the accusation. That a copy of this resolution be forwarded to Dr. Littlejohn and the weekly medical journals."

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE horse influenza, or "pink eye," is causing owners much concern here, and in some cases very heavy loss. Mr. Clement Stephenson, Consulting Veterinary Surgeon, read an able paper on the affection the other day in this city. Mr. Stephenson holds to the view that it is a virulent form of an old disease. It gave much trouble in 1881, but the visitation at that time was mild to the present one. Mr. Stephenson refers the origin of the present outbreak to the arrival of a lot of foreign ponies from Hamburg in October, when one of the animals gave unequivocal signs of the disease.

Up to this time the health of the district, as regards horses, was good, and no special disease prevailed, but from the above date the gravity and extent of the affection increased, for he shows that although the disease is highly contagious and infectious, in the fullest meaning of the terms, no care was taken to isolate the cases or in any way stamp out the disease. Mr. Stephenson very naturally asks why it should not be dealt with in the same way as other infectious diseases—viz., by compulsory notification, isolation, and proper disinfection? Mr. Stephenson goes on to show that in all probability one attack gives immunity from a second, at least for some time, for he has not been able to discover—and his experience is very considerable—any horse affected at present that was attacked in 1881.

Our officials are now showing some commendable activity in the way of prosecuting for vending unsound and adulterated food. In the case of milk, a conviction was obtained after proof of the fluid in question containing from eighteen to twenty per cent. of added water. We do not hear, however, of any prosecutions for adulterated drugs. It is certain, however, that cheap drugs should be approached with great caution by all who have to make arrangements for the supply of our institutions. I have heard of a case where a tender was "put in," and unfortunately accepted, principally because of its very low price and expected great saving. One of the articles happened to be citrate of iron and quinine. The very low price led to some suspicions on the part of one of the committee, and upon analysis the preparation was found to contain only one per cent. of quinine! Unless institutions have their drugs from houses above suspicion, and do not make price a primary consideration, it would be well to have a guarantee that the preparation is of a standard quality.

I was present at an interesting case of ovariotomy of Mr. Jeaffreson's on January 6th. The patient's age was forty-eight years; the tumour was multilocular, and when tapped was found to contain about four and a half gallons of fluid. One of the cysts was detached and projecting between the uterus, and the bladder gave on examination before operation rather the feeling of a solid tumour. Mr. Page and others assisted at the operation, and the woman is now convalescent. This, I believe, is the fifth consecutive successful case of ovariotomy Mr. Jeaffreson has had of late.

Our local charities would seem just now to have come within the influence of a golden shower of bequests. Last week I told you of the bequest of the millionaire Mr. Robert Ormston to our city charities. Now I have to mention the will of Miss Elizabeth Fenwick, who died possessed of a very large amount of personal property, besides several valuable collieries in the county of Durham. She has left, amongst other charitable bequests, £2000 to the Newcastle Infirmary; to the Child's Hospital, £500; the Whitley Convalescent Home gets £500; the Gateshead Dispensary, £200; and the Durham County Hospital, £1000.

The following cases of zymotic diseases have been notified by practitioners to the city medical officer of health for the last fortnight:—Small-pox, 25; typhus, 13; scarlet fever, 29; continued fever and diphtheria, 2; total, 87, being an increase of 13 on the previous fortnight's return.

Newcastle-on-Tyne, Jan. 30th, 1883.

SCOTTISH NOTES.

(From our own Correspondent.)

OUTBREAKS of measles have occurred in several of the Orkney Islands, and the spread of the disease is said to be rapid, though fortunately the cases are mild. With such varying temperatures as have been recently experienced in the north an epidemic of measles may be a serious matter, while the small number of practitioners available renders the lot of doctors and patients alike undesirable.

The account incurred by the students of Aberdeen for damages done while baiting their Lord Rector has now been received. The proprietors of the music hall charge about £4 for broken furniture, &c., and the students will raise the amount by a small levy upon each. It is to be hoped that this little episode may bring a repentant blush to the cheeks of the ringleaders.

The students of Aberdeen University had, last week, a warm discussion as to "Whether ancient or modern classics are most valuable?" The prevailing current of opinion on this question was well illustrated in the fact that champions for the ancients could scarcely be found, and an enormous majority voted their disagreement with the present system of university education. Less rigidity in the course is desired as keenly by the students as by any of their reforming seniors.

The Liddell bursary of £20 has been presented, after competition, by the town council of Aberdeen to Mr. J. C. G. Duffus, M.A., and the Mather bursary of a similar amount to Mr. J. D. Thomson, M.A. The Murray Scholarship has been gained by Mr. Patrick W. Rattray, M.A. The senatus of the university has had under consideration the position taken by the students with regard to examinations in pathology, and have agreed "that the examinations for medical graduation shall be continued on the same footing as formerly, with the understanding that this shall, in the meantime, apply only to students now engaged in the last year of their medical curriculum." After due regard is given to the feelings of students who commenced study before the establishment of Dr. Hamilton's chair, it may be suggested that no time should be lost in formally admitting this important subject to the list of compulsory studies. It is satisfactory to hear that the class is largely attended, and that several qualified men are availing themselves of Dr. Hamilton's excellent teaching. Arrangements suggested by the medical faculty being now completed, it is expected that the medical bursaries recently founded by Mr. Thompson will be open for competition at the beginning of next session.

A few cases of scarlet fever having occurred on board the *Mars* training ship at Dundee, which harbours over 400 boys, they were promptly conveyed to a building on shore, which has for some time been used as a hospital when disease appeared in the ship. A considerable scare was started by some busybodies on shore, but the directors having applied to Drs. Miller and Stewart for a report on the whole circumstances, these gentlemen were able to show that the arrangements are admirable, or at least the best possible in the circumstances. The agitation will serve a good purpose if it induces the local authority to provide a suitable permanent hospital for all such cases occurring in their district.

The admirable inaugural address delivered by Professor M'Intosh to his class at St. Andrews has been published, and may be commended as a succinct statement of the work done in deep-sea dredging. Dr. M'Intosh is most anxious to secure a zoological station for St. Andrews, and points out the benefit to science likely to accrue from such observatories along our coasts.

The prompt management of an epidemic of typhoid fever, which has recently attacked the Roslin district, is worthy of special mention, contrasting as it does with the usual course taken by local authorities under similar circumstances. So soon as an unfavourable report regarding the quality of the water submitted to Mr. Falconer King for analysis had been obtained, a public meeting of the inhabitants was held, a petition for a new supply of water was adopted, and the local authority at once received permission from the Edinburgh Water Trust to tap their main. Pipes have been laid, and already the new supply is in use, though it is but a few weeks since typhoid first appeared.

The secretary to the Board of Supervision has just issued a statement which shows that during 1882 the number of paupers was reduced from 101,610 to 100,068, notwithstanding the increase in population. The percentage of paupers to population is now 2·62, as contrasted with 3·46 in 1873, and the decrease is noted as steady. The proportion in the large towns varies from 1·57 in Greenock to 2·98 in Perth. As may be gathered from the reports by the officers to the Board, recently published, the poorhouse test, deprecated by THE LANCET, is here also the lever by which these favourable statistics are made possible. Convincing enough proofs of its effects are given.

IRELAND.

(From our own Correspondent.)

DR. BANKS, President of the Dublin Branch of the British Medical Association, delivered the inaugural address at the College of Physicians on January 25th. He referred to the report of the Royal Commission appointed to inquire into the grants of medical degrees, &c., recently published, and was of opinion that a State examination should, if adopted, be to

a great extent a test of practical knowledge, and should follow a degree or diploma from one of the recognised medical authorities. He believed that the Staats Examen, or the appointment of assessors who should report to the Council such examinations as are not of a sufficient standard of proficiency, would be preferable to the one-portal system as proposed by the Commission, and against which he felt bound earnestly to protest. He thought such would have the effect of inflicting irreparable injury, if not total ruin, on the medical corporations, some of which, at all events, have for many years done all in their power to advance medical education by the introduction of improvements, voluntarily adopted. Having alluded to the improvements in some of the Dublin medical schools, and the changes in the examinations of the Colleges of Physicians and Surgeons, he proceeded to refer to the curriculum of the Royal University of Ireland, which required the compulsory attendance by students for its degrees on a course of clinical instruction in a hospital for the insane, and special clinical instruction in fever—arrangements which he considered admirable.

The late Dr. Allen, Medical Officer of Gorey Union, who recently died of pneumonia, had a very extensive practice, and it has therefore caused considerable surprise to find that, instead of leaving his family comfortably provided for, he died almost in debt. Had he been less generous in refusing fees from parties perfectly competent to pay for professional advice, this would not have occurred; and a fund has now been started on behalf of his family, which I am glad to learn is likely to prove a great success.

Cases of excision of the wrist are among the most important operations in conservative surgery, and when conducted under antiseptic precautions the results are most favourable. I had an opportunity on last Tuesday, at the City of Dublin Hospital, of seeing a case of this kind, which Mr. H. Gray Croly had operated on just a week previously. The following are very brief details of the case:—The patient, a man about thirty, suffered for the past year from disease of the carpal bones; and on the 23rd ult. Mr. Croly removed all the bones of the carpus, they being extensively diseased, and also the heads of the metacarpal bones. A thin slice was next taken off the styloid process of both radius and ulna, and the parts being brought closely together were placed on a cork splint. Mr. Croly modified Lister's operation by not cutting any of the extensor tendons. The case is doing well, and the patient is able to move his fingers with freedom. On Tuesday last Mr. Croly operated on a case of double harelip, and I mention the matter as it was rather unusual, there being no fissure of the palate.

Dr. Barry, Consulting Sanitary Officer for Limerick Union, lately reported an outbreak of fever in one of the districts, but the medical officer of the district in question attended last week a meeting of the Public Health Committee and denied that it existed. Ten families were attacked with fever since the 10th of last November, with only three deaths. It is probable that, as the workhouse is in the same district referred to by Dr. Barry, the deaths in that institution are accredited to the district in which it is situated.

The annual general meeting of the friends of the Samaritan Hospital, Belfast, held recently, was a satisfactory one, inasmuch as the report showed that the hospital was in good working order, and in a pecuniary sense it was gratifying to learn that the income for the past year largely exceeded the expenditure. The committee consider that the payment of a small sum by the patients seeking advice, and who can afford it, is the best means to obtain a steady source of income for the hospital, while it protects it against imposition. At all events the arrangement has proved most successful.

During the last year and five months 280 inmates were received into the Ulster Hospital for Children, and upwards of 9000 cases treated at the extern department. At the annual meeting held in 1881 there was a large balance due to the treasurer, but since then nearly £1000 has been obtained; so that the hospital has been placed in a good position financially. A new department has been added, so as to meet the requirements of the Royal University in relation to the degree of Doctor in Medicine.

Dr. Barnewell P. White has been appointed High Sheriff for the City of Londonderry.

The statement extensively circulated to the effect that several cases of famine fever had recently been admitted into the Boyle Workhouse Hospital has been contradicted by the medical officer, Dr. Plunkett O'Farrell.

The funeral of Dr. Shinkwin of Cork whose demise was recently referred to, took place last week, and was one of the largest ever seen in that city. In addition to the carriages containing the friends of the deceased the students of the Queen's College, to the number of 150, walked in procession, the majority wearing crape.

An outbreak of scarlatina has taken place in the *Gibraltar* training ship, stationed at Belfast.

PARIS.

(From our Paris Correspondent.)

DR. DIONIS DES CARRIÈRES of Auxerres, a candidate for the membership of the Medical Society of Paris, has forwarded a report to that Society on an epidemic of typhoid fever which broke out in the former city about the beginning of September last. The origin of the epidemic was clearly traced to a spring over which stands a dwelling-house, and in which one of the residents, a woman, was affected with typhoid fever. It was presumed that the water from that spring was contaminated by the dejections of the patient, as it was ascertained that the patients who were subsequently affected had made use of the water for drinking and other domestic purposes. Dr. Dionis des Carrières could not attribute the epidemic to any other cause, as the patient in question was, in the midst of a population of 16,000 souls, the first person affected with the disease, and it spread so rapidly that in less than six weeks 800 persons were attacked, of whom 92 died. But Dr. Féréol, who was nominated by the Society to report on the communication of Dr. Dionis, was more sceptical, and, while ready to admit the correctness of Dr. Dionis' views, said it must not be forgotten that the typho-genetic principle may find its way into the system through other media than drinking water—to wit, the air through the air-passages. He thought also that the theory of the spontaneous origin of the disease should not be absolutely rejected, as it could not be explained, as in the present case, how the first patient got affected. He, nevertheless, laid great stress on the advisability of attending, in large centres of populations, to the drinking water, which, as recommended by Dr. Dionis, he would have always boiled prior to being used, and particularly during epidemics of typhoid fever and cholera. Dr. Féréol preferred this salutary measure to the habitual use of mineral waters, which he said could not be employed for any time without producing injurious effects on the system. Dr. Dujardin-Beaumetz observed that this remark applied more particularly to some of the so-called "natural" mineral waters, which are not in any way superior to those artificially prepared.

An epidemic of typhoid fever has been raging for some time among the troops garrisoned at Angoulême, in consequence of which the men have been turned out of their barracks, and are now encamped in tents.

One of the vilest frauds that could be devised by human ingenuity has just been discovered in the hospitals of Paris, where the sulphate of quinine was mostly substituted by the sulphates of cinchona and cinchonidinia. The fraud was first accidentally discovered by the apothecary at the Children's Hospital, who found that the powder he put up for the patients had a different feel to that which he was in the habit of handling, and by a singular coincidence the same discovery was made on the following day by Dr. Laborde, who got some quinine from the Laennec Hospital to try some experiments in his own laboratory. Many of the other hospital physicians were also struck with the inefficiency of the drug they were prescribing in typhoid and intermittent fevers, and in those affections in which the sulphate of quinine is usually administered. As in most cases, where the subjects are hampered by the intricacies of bureaucracy, it was difficult to bring home the guilt to the parties who had committed the fraud. The officials of the Pharmacie Centrale, who supply the hospitals and chemists' shops in Paris, repudiated all knowledge of the fraud, as they got their supply of quinine from an authorised contractor, who by some unaccountable circumstance happens to be a colour merchant. This individual endeavoured to exculpate himself by throwing, in his turn, the blame on his contractors, who are foreigners, and who manufactured and supplied him regularly with the drug. The quinine is received at the central pharmacy in small cases, and the other two alkaloids,

which were found in the cases containing the quinine, were not mixed up with the latter; but the whole three were so ingeniously arranged in the cases that it would require a practised eye and a suspicious mind to detect the fraud. M. Quentin, the Director of the Assistance Publique, has put the matter into the hands of the judicial authorities, and we shall probably hear no more about it.

It has long been a difficult problem as to how to warm railway carriages during winter. Zinc or tin pans filled with hot water have been for some time employed; but they have their inconveniences, such as the being obliged to renew the water in them at short intervals (about every two hours), which causes a great deal of trouble and expense, to say nothing of the continual annoyance caused to travellers thereby. To remove these inconveniences M. Ancelin, a civil engineer, proposes to replace the water by crystallised acetate of soda. A pan filled with this substance, he says, would supply sufficient heat, which would last nearly four times as long as a pan of the same dimensions filled with water; so that the pan would require to be renewed only about every eight or ten hours. The advantages of this system over the other are obvious, and its mode of employment is very simple. After having introduced the necessary quantity of the salt in the pan, the latter is hermetically closed. The pan is then plunged into boiling water to effect the dissolution of the salt; this done, the pans are placed in the carriages. When they become cold they are replunged into boiling water and replaced in the carriages. This mode of proceeding may continue almost indefinitely as the salt is so durable that its calorifying power may be said to be unlimited. M. Ancelin observes that this property of the acetate of soda may be also applied to various domestic purposes.

Dr. Charles Sédillot, former Professor of Val-de-Grâce, died yesterday at Sainte-Ménéhould, in the eightieth year of his age. He was also formerly Director of the Military Medical School at Strasbourg, and at his death he was member of the Academy of Sciences and of the Academy of Medicine, and Commander of the Legion of Honour. M. Sédillot was a distinguished surgeon, and the author of several remarkable works on surgery.

The Prefect of the Seine has informed the Anthropological Society of Paris that he has decided upon the erection of a statue to Paul Broca, on a vacant piece of ground situated in the proximity of the School of Medicine.

Paris, Jan. 30th, 1883.

THE SERVICES.

BENGAL SUBORDINATE MEDICAL DEPARTMENT.—The undermentioned Honorary Surgeons to be Honorary Surgeons-Major:—James Edward Harrison, Richard Edward Wrafter, Richard James Quinnell, M.D.

RIFLE VOLUNTEERS.—Galloway: Honorary Assistant Surgeon Patrick M. Murray, M.D., resigns his commission. 1st Isle of Wight: Acting Surgeon Channing Neill, M.D., to be Surgeon. 1st Lincolnshire: Francis John Walker, Gent., to be Acting Surgeon. 22nd Middlesex: Surgeon Robert Cuff resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the corps on his retirement. 1st Pembrokeshire: James Mathias Phillips, M.D., to be Acting Surgeon. 1st Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Surgeon Robert Wentmore Thomas resigns his commission. 3rd Durham (the Sunderland): Acting Surgeon James Murphy, M.D., resigns his appointment. 3rd (West) Kent: Surgeon Frederic Fisher resigns his commission.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleet Thomas Colan, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of January 25th, 1883.

The following appointments have been made:—Surgeon James Stewart Wray, to the *Euryalus*, additional; Surgeon Henry Stewart Jackson, to the *Orwell*.

THE annual meeting of the Hastings and St. Leonards Sanitary Aid Association was held on the 26th ult. A satisfactory report was adopted, and allusion was made to several societies in London and elsewhere which have recently been formed upon the same lines as the Hastings Association.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on Jan. 25th:—

Ashby, Henry, M.D. Lond., Manchester.
Beckett, John, M.D. Glas., Windermere.
Carpenter, Alfred, M.D. Lond., Croydon.
Haig, Alexander, M.B. Oxford, Chepstow Villas.
King, David Alexander, M.B. Lond., Pembridge Villas.
McConnell, James Frederick Parry, M.D. Aberd., Calcutta.
Phillips, Sidney Philip, M.D. Lond., Radnor-place.
Richardson, Adolphus Joseph, London Hospital.
White, William Hale, M.D. Lond., St. Thomas's-street.

On the same day the following candidates were admitted Licentiates of the College:—

Allen, Frank James, Shepton Mallet.
Bateman, Hinton Ernest, St. Bartholomew's Hospital.
Boxall, Robert, Cranleigh, Guildford.
Browne, Ralph Henry, Guy's Hospital.
Buol, Florian, Davos Platz, Switzerland.
Caiger, Frederick Foord, St. Thomas's Hospital.
Chadwick, Charles Montague, London Hospital.
Cockburn, Lostock Weatherley, St. Bartholomew's Hospital.
Codd, Arthur Frederick Gambell, Clarendon-road.
Coward, Richard Courtenay, Penywern-road.
Dimsey, Edgar Ralph, Middlesex Hospital.
Etches, William Robert, Guy's Hospital.
Graham, Samuel, Carnanghliss, Lisoniel, Belfast, Ireland.
Grant, James Alexander, jun., M.D. McGill Coll., Guilford-street.
Griffith, Walter Spencer Anderson, St. Bartholomew's Hospital.
Gwillim, Richard Davis Hoyle, Marlborough.
Hebbert, Charles Alfred, Sanctuary.
Jones, Owen Clayton, City of London Hospital, Victoria-park.
Jones, Wm. Hugh Fenton, Duke-street, Manchester-square.
Kilham, Charles Speight, West Pelton, Chester-le-Street.
Orford, John, Villa-road.
Paget, Charles Edward, Princes-street, Hanover-square.
Palmer, Fredk. Stephen, M.D. Brus., Compton Lodge, East Sheen.
Power, Charles John, De-Laune-street.
Prangley, Henry John, West Cowes, Isle of Wight.
Rygate, David John, Cannon-street-road.
Salmon, Arthur Guy, Granville-square.
Sheppard, William John, Rotherwood, Oakhill-road, Putney.
Shore, Thomas William, Beaumont-street.
Spitzly, John Henry, Grange-road.
Sunderland, Septimus, Montague-road, Edgbaston, Birmingham.
Thring, Edward Thomas, University Hospital.
Travers, Geoffrey Frederic, Nevern-road.
Tresidder, Edward Stanley, Guy's Hospital.
Wakley, Thomas, Redcliffe-gardens.
Waring, John Arkle, Princes-gardens.
Winder, Wm. Henry, York-street, Cheetham, Manchester.
Wynter, Walter Essex, Templecombe, St. Margaret's, Twickenham.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 25th ult.:—

Bluett, James Duncan, Montague-street.
Browne, Ralph Henry, L.R.C.P. Lond., Southend.
Bruce, Robert Marston, L.S.A., Lordship-lane.
Buksh, Raheen, Calcutta.
Coward, R. Courtney, L.R.C.P. Lond., Penywern-road.
Dent, H. L. Richards, L.S.A., Woolwich.
Gaudin, G. Charles, L.R.C.P. Ed., Jersey.
Goddard, C. Ernest, Cambridge-gardens.
Huntington, William, Liverpool.
Long, J. W. Francis, Stamford-street.
Paley, F. John, Bournemouth.
Prangley, H. John, L.R.C.P. Lond., West Cowes.
Pigeon, H. Walter, Clifton, Bristol.
Prendergast, Arthur de, Cornwall-road.
Shore, T. William, L.R.C.P. Lond., Southampton.
Spitzly, J. Henry, L.R.C.P. Lond., Canonbury.
Tatham, C. J. Wilmer, Dallington, Sussex.
Wallis, F. Charles, Southampton.

The following gentlemen were admitted Members of the College on the 26th ult.:—

Bewes, E., Anstis, L.R.C.P. Ed., Ladbroke-grove.
Champ, J. Howard, L.S.A., Chelmsford.
Downes, Howard, Canonbury.
Dimsey, E. Ralph, L.R.C.P. Lond., Highgate.
Grün, E. Ferdinand, L.S.A., Putney.
Harding, C. O'Brien, Hornsey.
Lewers, A. H. N., L.S.A., Gower-street.
Norry, W. Augustus, L.S.A., Wokingham.
Partridge, W. Thomas, Luton.
Stewart, R. Charles, L.S.A., Clifton-gardens.
Wynter, W. Essex, L.R.C.P. Lond., St. Margaret's.

The following gentlemen were admitted Members of the College on the 29th ult.:—

Cave, Edward John, L.R.C.P. Lond., Melbury Osmond.
Dalton, Arthur, South Norwood.
Fairlie, Ambrose William, Seymour-street.
Griffin, Albert Watson, Peterborough.
Harlock, Harry, Ely.

Longman, Arthur, L.S.A., Andover.
Mellor, Charles Booth, Newport, Isle of Wight.
Montgomery, W. A. Dawson, M.B. Toronto, Toronto.
Plimmer, Henry George, Waldegrave-road.
Roberts, Henry, L.S.A., Shaftesbury.
Scanlan, Arthur de Courcy, L.S.A., Eastbourne.

The following gentlemen were admitted Members of the College on the 30th ult.:—

Green, Henry, L.R.C.P. Ed., Norfolk-crescent.
Halliburton, W. Dobinson, Upper Norwood.
O'Kane, Michael, L.S.A., Camberwell.
Parsons, Charles William, L.S.A., South Hackney.
Treasure, W. B. Crawford, L.S.A., Crewkerne.
Trinder, Alfred Probus, Highgate.
Watson, Robert Walker, L.S.A., Hihgbury New Park.
White, Thomas Harry, L.S.A., Lincoln.

Of the 181 candidates examined during the past fortnight, 83 passed to the satisfaction of the Court and obtained their diplomas; 32 passed in Surgery, and when qualified in Medicine and Midwifery will be admitted Members; the remaining 66 failed to reach the required standard, and were referred to their further professional studies. Twenty candidates who passed in Surgery at previous examinations, having subsequently obtained a medical degree or licence recognised by the College, were also admitted Members.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 25th:—

Clarke, Charles Frederick, Crescent-road, Plumstead.
Evans, Willmott Henderson, Montague-place, Russell-square.
Josling, Charles Langford, The Parade, Epsom.
Murray, Charles Stormont, Cumberland-place, Hyde-park.
Orford, John, Villa-road, Brixton.
Vinrace, Edward Dennis, Hockley, Birmingham.

[In the list published last week the name F. D. L. Ensor was by mistake printed "Enson."]

VACCINATION GRANT.—Mr. O. Lowsley, Reading, has received for the fifth time a grant for efficient vaccination in his district.

MR. GEORGE COURTAULD, M.P., has offered to erect a cottage hospital at Halstead, at a cost of nearly £1500. After erection the hospital is to be supported by the town, and for ever conducted upon the principles of civil and religious liberty.

ON Tuesday Dr. Danford Thomas held an inquiry into the death of a medical assistant, who was found dead in a coffee house in Praed-street. The evidence seemed to show that the deceased had inadvertently taken an overdose of chlorodyne, and the jury returned a verdict to that effect.

CARDIFF MEDICAL SOCIETY.—At the annual meeting held on Jan 18th the following gentlemen were elected office-bearers for the ensuing year:—President: William Price, M.B. Lond. Vice-President: Charles Vacher, M.D. Lond. Committee: C. E. Hardyman, M. G. Evans, M.D., Albert Plain, M.B., A. P. Fiddian, M.B. Hon. Secretary and Treasurer: T. Garrett Horder.

PRESENTATION. — An illuminated address, signed by all the influential residents of Cleckheaton, was recently presented to Dr. Wallace, on the occasion of his leaving that town to take up his residence at Southsea. The address expressed the high esteem in which the doctor was held by the signatories, and their regret at his leaving them, and was accompanied by the presentation of a gold-mounted scent-bottle to Mrs Wallace.

THE annual meeting of the subscribers to the Royal United Hospital, Bath, was held on the 29th ult. The financial report was not satisfactory, the expenditure having exceeded the income by £1000. The increased expenditure had arisen from the higher price of provisions, the larger number of patients, and the cost of improvements in the drainage. The number of patients admitted during the year was 1213, showing an increase of six on the previous year.

THE annual meeting of the Governors and subscribers of the General Infirmary at Hertford was held in the Shire Hall on the 25th ult. During the past year 304 in-patients, and 1379 out-patients had been treated. Since the opening of the institution 3934 persons have been supplied with trusses. The financial report was satisfactory. It was recommended that the accommodation for the nurses should be improved by building.

ON Tuesday the Marquis of Bute laid the foundation-stone of a new infirmary at Cardiff, the cost of which is estimated at £28,000. The site for the building and a handsome sum towards its erection have been given by his Lordship.

THE annual meeting of the Yeatman Hospital, Sherborne, was held on the 17th ult. A report which showed a balance in favour of the hospital was adopted, and Mr. A. Benthall was elected assistant surgeon to the hospital. The sanitary arrangements suggested by Dr. Blaxall, who inspected the hospital last summer, have been carried out. A vote of thanks to the medical officers for their services was carried unanimously.

HOSPITAL ACCOMMODATION IN NORTH LONDON.—The first general meeting of the provisional council for obtaining increased hospital accommodation in the northern districts of London has been held. The report of the executive committee, bearing on the dispensaries and other medical charities of North Nondon, having been received, it was resolved that the time had come for the active promotion of the scheme, and that a meeting be held after Easter, at which the project should be definitively brought before the public.

MANCHESTER MEDICO-ETHICAL ASSOCATION.—At the annual meeting held on Jan. 30th, 1883, the following gentlemen were elected office-bearers for the ensuing year:—President: Dr. D. Lloyd Roberts. Vice-Presidents: Mr. Hardie, Dr. J. Roberts, Mr. Walmsley, and Dr. Stevenson. Treasurer: Dr. Joseph Stone. Secretaries: Dr. A. Wahltuch, and Mr. J. Broadbent. Committee: Drs. Barlow, Collins, and Cullingworth, Mr. R. Dacre Fox, Drs. Ledward, Mallett, Pierce, Leech, H. Simpson, Walter, John Watson, and Mr. Westmereland.

SUNDERLAND CHILDREN'S HOSPITAL.—It is satisfactory to learn that the friends and conductors of this institution are enabled to carry on their good work without the embarrassment experienced by so many hospital committees—viz., want of funds. At the annual meeting a few days ago the chairman (the Mayor of Sunderland) was able to speak of a "large balance in hand," and to make suggestions for its disposal—a circumstance worthy of note nowadays. A lady's sanitary committee has been formed for the purpose chiefly of diffusing a knowledge of health matters amongst mothers.

THE CUMBERLAND AND WESTMORELAND HOSPITAL SUNDAY FUND. — The total amount received from the Hospital Sunday and Saturday collections for 1882 was £1403 6s. 11*d*. Part of this sum was specially appropriated for one or other of the institutions participating in the fund by the churches or works in which collections were made. The remainder, after a small sum had been deducted for contingent expenses, was divided between the following five institutions: the Cumberland Infirmary, the Carlisle House of Recovery, the Carlisle Dispensary, Silloth Convalescent Institution, and the West Cumberland Infirmary.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BENTHALL, ALFRED ELLIOTT, M.R.C.P.Ed., M.R.C.S., has been appointed Assistant-Surgeon to the Yeatman Hospital, Sherborne.

BERRY, JOHN B., M.R.C.S., L.S.A., has been appointed House-Physician to the Royal Free Hospital.

BOOTH-CLARKSON, JAMES, L.R.C.P.Ed., L.R.C.S.Ed., late Medical Officer, Inman Royal Mail Service, has been appointed Medical Officer to the American United States Mail Line.

BOOTH, Mr. E. HARGRAVE, of Guy's Hospital, has been appointed House-Surgeon to the Seamen's Hospital, Greenwich.

CASEMENT, B. NEWCOMEN, M.B.Dub., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Macleay River, New South Wales.

CRAWFORD, JAMES ROBERT, L.F.P.S.Glas., has been appointed Government Medical Officer and Vaccinator for the District of Temora, New South Wales.

CRICHTON, GEORGE, A.M., M.B., L.R.C.S.Ed., has been appointed an Ordinary Medical Officer of the Twickenham Provident Dispensary.

EASON, ALEX. MOULSDALE, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Lytham District of the Fylde Union.

FAIRLEY, Mr. T., has been reappointed Public Analyst for the Liberty of Ripon.

HOAR, CHARLES, M.R.C.S., has been appointed House-Surgeon to Mr. Christopher Heath, at University College Hospital.

KNIGHTS, Mr. J. W., has been reappointed Public Analyst for the Borough of Cambridge and for the Isle of Ely.

MURRAY, G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Infirmary, St. George's-in-the-East.

ROSS, Mr. ELSEY FAIRFAX, has been appointed House-Physician to Dr. Wilson Fox in University College Hospital.

SWETE, E. HORATIO W., M.D. St. And., M.R.C.S., L.S.A.Lond., has been reappointed Public Analyst for the Borough of Droitwich.

TINSLEY, SETH, L.F.P.S.Glas., has been appointed Medical Officer for the Weetwang District of the Driffield Union.

WALKER, JOHN MCCLURE, M.B., C.M.Glas., has been appointed Medical Officer for the Western District of the Haltwhistle Union.

Births, Marriages, and Deaths.

BIRTHS.

APPLEYARD.—On the 5th October, at Longford, Tasmania, the wife of James Appleyard, J.P., M.R.C.S.E., & L.S.A.Lond., of a daughter.

BRUCE.—On the 25th ult., at Harley-street, Cavendish-square, the wife of Dr. J. Mitchell Bruce, of a son.

DEWAR.—On the 30th ult., at Sloane-street, S.W., the wife of John Dewar, L.R.C.P.E., L.R.C.S.E., of a son.

LEWERS.—On the 4th ult., at Gower-street, Bedford-square, the wife of Arthur H. N. Lewers, M.R.C.S., L.R.C.P. Lond., of a daughter.

SMYTH.—On the 20th ult., at Pelham House, Poole, Dorset, the wife of Hatton Smith, M.D., of a son.

MARRIAGES.

CLEGG—MORGAN.—On the 11th ult., at Holy Trinity Church, Clondesley-square, John Hague Clegg, M.R.C.S. &c., of Stockton-on-Tees, to Alice Louise, third daughter of C. J. Morgan, Esq., of Barnsbury-park.

HANBURY—SANDES.—On the 30th ult., at St. Mary's, Wimbledon, by the Rev. W. Smartt, B.D. (nephew of the bridegroom), assisted by the Rev. C. J. Meade, Vicar of St. Jude's, Peckham, Ingham Hanbury, Fleet-Surgeon, C.B.R.N., to Josephine, youngest daughter of George Sandes, Esq., J.P., of Listowel, co. Kerry, Ireland.

HOYLAND—HARDY.—On the 25th ult., at the Parish Church, Hatfield, Yorkshire, by the Rev. G. P. Haydon, M.A., Stanley Stenton Hoyland, M.R.C.S., L.S.A.Lond., second son of Hugh Hoyland, of Clifton-park, Rotherham, to Mary Florence Maude, younger daughter of George Hardy, LL.D. No cards.

JOBSON—SMITH.—On the 25th ult., at Ashwood, Broughty Ferry, N.B., Surgeon-Major William Jobson, Army Medical Department, to Jane Amelia, daughter of Thomas Smith.

LEIGH—JONES.—On the 24th ult., at St. John's Church, Cefn Coed, Breconshire, by the Rev. R. Williams, Rector of Vaynor, and the Rev. D. Leigh (uncle of the bridegroom), Rector of Llanfabon, William Watkin Leigh, M.R.C.S.Eng., L.R.C.P., eldest son of John Leigh, Esq., F.R.C.S.Eng., J.P., of Llanfabon, Glamorganshire, to Jessie Louisa, youngest daughter of William Jones, Esq., of Glangrafon, Cefn Coed, Breconshire.

REDMAYNE—BLOMFIELD.—On the 25th ult., at Brathay Church, Ambleside, by the Lord Bishop of Colchester, assisted by the Rev. Prebendary Brook, Rector of Hackney (uncles of the bride), and the Rev. H. S. Callender, Vicar of the Parish, Hugh Redmayne, M.R.C.S.Lond., L.R.C.P.Ed., of Ambleside, second son of Giles Redmayne, of Brathay Hall, to Katharine Mary, second daughter of the late Rev. F. G. Blomfield, Rector of St. Andrew Undershaft, London.

DEATHS.

BROWN.—On the 28th ult., at his residence, Newlands, Ryde, Isle of Wight, Richard Brown, M.D., late of Cobham, Surrey, and Hove, Sussex, aged 61.

DUIGAN.—On the 25th ult., at Gainsborough, John Philip Duigan, M.D., in his 61st year.

GAUNT.—On the 19th ult., at his residence, Alvechurch, Worcestershire, John Smith Gaunt, M.R.C.S., aged 65.

SAVAGE.—On the 27th ult., at Dover, Johnson Savage, M.D., Deputy Inspector-General of Army Hospitals, late of the Royal Artillery, in his 79th year.

TAYLOR.—On the 26th ult., at Portman-square, Robert Taylor, M.D., second son of the late Robert Taylor, of Broomland, Dumfries, N.B.

THOMAS.—On the 16th ult., at The Cliff, Goodwick, Fishguard, John Richard Thomas, Surgeon-Major, Fellow of the Royal Geographical Society.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, Feb. 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Third Lettsomian Lecture: Dr. A. Ernest Sansom, "On the Treatment of some Forms of Valvular Diseases of the Heart: Mitral Stenosis—Lesions of Aortic Valves."—Adjourned Discussion on the Association of Tuberculosis and Bacilli.

Tuesday, Feb. 6.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor W. C. Williamson, "On Primæval Ancestors of Existing Vegetation."

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Clot from Pulmonary Artery; Cancer of Undescended Testis; Deep Ulceration of Cranium; Rheumatic Arthritis; Tubercle Bacilli; Aneurism of Arch of Aorta (two cases); Rickets in a Lizard; Unilateral Anophthalmos (living specimen); Aneurism of Abdominal Aorta; Abnormality of the Bones and Muscles of Shoulder-joint.

Wednesday, Feb. 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Annual Meeting: Election of Officers and Council.—Specimens will be shown.—President's Address.—Dr. Godson, "On Clinical Cases of Interest, with Remarks thereon."

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Deputy Surgeon-General A. C. C. De Renzy, "On the Sanitary State of the British Troops in Northern India."

Thursday, Feb. 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On the Spectroscope and its Applications."

Friday, Feb. 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—8 P.M. Mr. M. D. Conway, "On Emerson and his Views of Nature."

CLINICAL SOCIETY OF LONDON.—Mr. Shuter, "On Subperiosteal Amputation at the Hip-joint."—Mr. Bennett May, "On a Case of Nephrolithotomy, stone weighing 473 grains; complete recovery."—Dr. J. K. Fowler, "On Two Cases of Pseudo-Hypertrophic Paralysis in Adults (patients exhibited)."—Mr. Godlee, "On a Case of Fracture of the Radius and Dislocation forwards of the Ulna at the Wrist, in which the lower end of the latter bone was removed to effect reduction (patient to be shown)."

Saturday, Feb. 10.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. Bosworth Smith, "On the Siege and Capture of Delhi."

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Feb. 1st, 1883.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia. in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 26	29·17	W.	40	36	..	45	34	·07	Cloudy
,, 27	29·73	W.	39	36	..	50	33	..	Overcast
,, 28	29·98	S.W.	44	40	..	53	34	·19	Cloudy
,, 29	29·55	W.	52	51	..	54	41	·05	Overcast
,, 30	29·60	W.	39	36	..	46	33	·56	Fine
,, 31	29·54	S.E.	35	34	..	40	30	..	Foggy
Feb. 1	30·48	W.	36	35	..	41	31	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

CRUELTY IN SPORT.

WE have on many occasions protested against the present system of stag hunting. To turn a tame deer out of a cart and run it to death by ferocious hounds is not only an un-English sport, but disgraceful to the nation. Only a few days since, after a good run, the dogs were allowed to mutilate and drown the hunted animal. The Princess of Wales has practically discountenanced the atrocity of pigeon slaughter. May we hope that Her Royal Highness will take pity on the poor stag.

Students.—Koch's discovery of the bacillus of tuberculosis, and the theory of the contagiousness of the disease based thereon, appear to have been confirmed by inoculation experiments by M. Vallin, a professor at the Val-de-Grâce Medical School. M. Vallin has also found by experiments that in this, as in other epidemic diseases, the spread of the disease may be prevented by disinfectants.

M. S.—The qualifications mentioned do not justify the use of the title of "Dr."

"PHYSICIANS' PRESCRIPTIONS."

To the Editor of THE LANCET.

SIR,—It is singular that there should be so much difference of opinion on this subject. If we look at the case accurately, the whole question seems to lie in a nutshell. A patient consults me—that is, seeks my aid. Why? To rid him of an ailment or to relieve his suffering. To do so I probably employ a combination of certain drugs, and I give a chemist written directions—the prescription—what drugs to combine and how. Clearly the nature of my prescription is a matter of no concern to the patient; his business is to use the means I prescribe for him. His right of property extends solely to the bottle of medicine he receives from the druggist by my direction, and no further. The prescription itself, if it belongs to anyone, belongs to me, otherwise the patient might as well claim the knife with which I amputate his leg. He is allowed to retain the prescription simply as a matter of convenience for reference, for future repetition, and for identification; and I do not retain it, because it is probably of no further use to me. But curiosity, which in this case has its foundation deep in the instincts of human nature, leads a patient eagerly to scrutinise my prescription; if there is something in it he does not understand he often asks me for an explanation, just as another patient will not hesitate to inquire as to the contents of the bottle I may hand to him in the surgery. Both wish to have a hand in their own treatment, a desire which, like much of the meddlesomeness which often hampers the physician, springs from the all-powerful instinct of self-preservation. But it is absurd to suppose that the possession of a prescription confers on the possessor the right to use it on himself or on others at his own discretion.—I am, Sir, yours obediently,

Fletching, Jan. 30th, 1883. W. J. TRENTLER, M.B. Edin.

PATHOGENESIS OF EPITHELIUM.

DR. CARL HEMPEL REED, Resident Physician at the Philadelphia Hospital, has arrived at the following conclusions after a lengthened investigation of the pathogenesis of epithelium, with special reference to the formation of cancer:—

1. Primary true cancers are found only in locations where there is pre-existing epithelium. 2. No cancer has been proved beyond doubt to have originated heterotopically. 3. The cicatrisation of cancers explains the young connective-tissue infiltration. 4. Young connective-tissue cells or white blood-corpuscles are never seen inside the alveoli. 5. The epithelial cancer-cylinders are independent of the connective tissue. 6. The endothelial ensheathments of connective-tissue trabeculæ forming the alveoli are intact. 7. Secondary cancers have a concentric growth. 8. The proliferating power of epithelium normally is greater than that of any other tissue. 9. The results of the experiments show that the epithelial covering in the healing of ulcers is exclusively derived from the epithelium of the border, a most conclusive proof of this being the gradual advancement of the pigment from the borders of the healing ulcer; this fact, by analogy, forming a strong testimony in favour of the epithelial origin of cancer. 10. The transformation of connective-tissue cells into epithelial cells, in extra-uterine life, does not occur, physiologically or pathologically.

X. Y. Z. might consult Professor Virchow's, Professor Fraser's, and Mr. Simon's addresses at the International Medical Congress; Professor Owen's address at the unveiling of the Harvey memorial; Dr. Gerald Yeo's article published in the *Fortnightly Review* of March 1st, 1882; and a pamphlet issued by Mr. Sampson Gamgee on the Influence of Vivisection on Human Surgery.

"MIDWIVES AND STILL-BORN CHILDREN."

To the Editor of THE LANCET.

SIR,—Perhaps you will allow me to remark that the above subject appears to demand closer attention from the profession than has hitherto been accorded to it. In my practice it appears that still-born infants are buried in a neighbouring churchyard, under cover of night, without any certificate having been required, the nurse having informed me that, as no baptism had taken place, it was unrecognised. This would appear to be the case in other instances, if what I hear be correct; and as midwives predominate in this neighbourhood, there is little wonder they are able to carry on their illegal practice without comment. Lawyer coroners may be all very well as far as forensic training is concerned, but without medical training they are superfluous. We are dreadfully hard on the poor, drudging, bottle-washing, and book-keeping assistant, but not nearly enough so on the quacks and irregular practitioners of the healing art. One midwife in this neighbourhood has already offered to allow me to "follow" her, and to introduce me to her *clientèle*; but I have refused the proferred leadership. I mentioned to the local registrar here that the practice of midwives was somewhat suspicious, and he assured me that they were highly respectable and qualified (!) persons. I said the district coroner ought to be informed of these burials of once living infants, as I heard of one being carried away by the midwife which had lived, and the registrar said I could apply to the said coroner, who is a legal gentleman. Not caring to forfeit 6s. 8d., I declined. I still, however, remain as astonished that these things should be so, and the more so after seeing your article of Jan. 20th, p. 115. I was instrumental in persuading the Privy Council to alter these apparent inconsistencies. It is to be hoped, for the sake of aspiring gynæcologists, these matters will receive due notice during impending legislation.

I am, Sir, your obedient servant,

January 20th, 1883. TANTALUS.

Puzzled.—It is illegal for any unqualified person to sign vaccination certificates, and if such conduct is represented to the registrar he will act very irregularly in not putting a stop to the registration of vaccinations so performed.

Wanderer.—The law assumes every registered person to have an address, and we think for the purposes of registration our correspondent should give one.

Surgeon and *H. D.* have not enclosed their cards.

IMPURE CHLOROFORM.

To the Editor of THE LANCET.

SIR,—Mr. Nankivell's letter in the last issue of THE LANCET, with regard to impurities in chloroform being the probable cause of death, reminds me of some operations I have assisted at in hospital practice in India. Chloroform was the general anæsthetic used, but never with any fatal result. We had at one time quite a number of cases where every patient took a larger quantity and a longer time to "get under." The stage of excitement invariably lasted longer, while the after-sickness was most distressing. In only one case had we to use artificial respiration, stimulant enemata, and hypodermic injections of ether. It was suggested by the senior surgeon that these symptoms were due to the use of the impure or deteriorated drug. We had it, therefore, subjected to the most careful analysis, but with no result—"only the odour was weak." That it was to blame for these troublesome effects was proved by the use of the fresh drug bought of a well-known chemist, when all our difficulties disappeared. Has the climate to account for any deterioration or impurity in the drug, or is it due to long keeping?

I am, Sir, yours faithfully,

H. E. BANATVALA, M.R.C.S., &c.

North Lodge, Kineton, Warwick, Jan. 23rd, 1883.

CHURCH VENTILATION.

A CLERGYMAN writes as follows:—

"You could hardly have taken up a more useful topic than the subject of church ventilation. The combustion of coke in what are termed 'slow-combustion stoves' is always a source of danger, for as soon as the fire gets low and the flue cold the poisonous gases, unable to ascend, collect in the stove and quietly escape through the doors, if they cannot find some other exit. If placed in a church they produce no ventilation, and are constantly, with a high wind blowing from some wrong quarter, apt to fill a building with smoke. The only safe and efficient mode of warming a building, where hot-water pipes are not in use, is by an apparatus containing some hundred feet of heating surface connected with a furnace, placed entirely outside the building, with the door of the furnace opening to the outer air. Such an apparatus, if enclosed in a small chamber, with a large opening to the building, will pour in a body of pure heated air in a continuous stream, and the vitiated atmosphere will, without any special arrangement, be found to be forced out. A school in Princes-street, measuring thirty by sixteen feet, only nine feet high and unventilated, and containing at times more than 100 children, which was unbearable after the first hour, was, by an apparatus of this description, kept comparatively pure throughout the day, the warm air passing into the school through a large wooden duct over an open yard. A similar apparatus may now be seen every afternoon in operation at 150, Holborn, where Mr. Stobbs will give every information. The apparatus, which obtained Honourable Mention at the South Kensington Exhibition, was designed chiefly to show what an immense proportion of heat may be economised and all smoke abated."

A Young Surgeon will find much information on the subject in Dr. H. Gibbes' paper in THE LANCET of August 5th, 1882, vol. ii., p. 183; also in Dr. Heron's article in our current number.

Constant Reader.—We do not prescribe. Any physician would answer the questions.

REFUSAL TO PAY A FEE.

To the Editor of THE LANCET.

SIR,—I shall feel much obliged if any of your correspondents will kindly give me his opinion upon the following:—

"Dear Sir,—Our groom's little boy has been kicked by a pony, and we fear his leg is broken. Could you come as soon as possible?

"Sept. 10th, 1882." "I remain, yours truly, J. D.

I attended at once, six miles from my house, and found the case one of fracture of the lower third of the femur. At my visit on the 19th I was presented by the mother of the child with an official order from the relieving officer, dated 11 A.M. of the 19th day of September. I continued to attend the case until the child recovered, and thought nothing more about it until making up my bills to the end of last year. I sent one to the husband of J. D., charging him for my attendance upon the groom's child from the 10th to the 19th Sept. I received the following answer:—

"I am much surprised at receiving a bill from you for attending my groom's child. I find it quite enough at the present time to pay my own bills, without paying accounts which belong to the parish."

Did I do wrong in charging for my attendance from the 10th to the 19th Sept., the date of receiving the order of the relieving officer?

I am, Sir, yours truly,

Sutton Scotney, Micheldever, Hants, ROBT. SHIELS, L.R.C.P. Ed.

Jan. 24th, 1883.

P.S.—The writer of the letter is not a private patient of mine, and there are no extra fees allowed by the board of guardians, such being included in the fixed salary.

N. B.—In New York, the Bellevue Hospital Medical School; the College of Physicians and Surgeons; the University of New York. In Philadelphia, Jefferson Medical College.

C. K. A. should put his questions to a medical agent.

LIME-JUICE AS AN ANAPHRODISIAC.

To the Editor of THE LANCET.

SIR,—Having for some time been employed as surgeon in the mercantile marine, I have often heard it stated amongst the sailors that lime-juice acts as above; and on the voyage home I have known sailors positively refuse to take it solely on that account. Would any of your readers who have been at sea kindly give their experience on this point. By way of experiment, I tried it upon myself for a month, without any stimulant whatever, and in my own case, to my astonishment, it acted as "Jack" maintains it does. I am, Sir, yours respectfully,

December 18th, 1882. NAUTILUS.

Mr. Montagu Palmer.—See THE LANCET of Feb. 25th, 1882, p. 329.

Mr. Tom Bird.—Next week.

NURSE TRAINING INSTITUTIONS.

To the Editor of THE LANCET.

SIR,—Can any of your readers inform me of any institution where, without payment, a woman aged twenty-four, and whose height is four feet nine inches, could be trained as a nurse?

I am, Sir, your obedient servant,

January 29th, 1883. BROS.

THE ACADEMIE DE MEDECINE AND HOMŒOPATHY.

THE French Academy of Medicine has apparently little sympathy with the homœopathists. What is described as "a regrettable incident" took place at the close of the last meeting, when a visitor from Brussels, who had the misfortune to utter the name of Hahnemann, and who undertook to describe what he believes to be a sure method of checking acute maladies, was prevented from speaking "with an impetuosity and violence of disapprobation little in accord with academic manners and scientific liberalism."

"SANITARY INSPECTION OF HOUSES."

To the Editor of THE LANCET.

SIR,—I notice in your article in THE LANCET of January 27th, in criticising my paper read before the Society of Arts on the above subject, you point out the desirability of there being some indication showing what part of the work advised to be done in altering the defective arrangements in houses is necessary and what merely advisable. I consider that it is impossible to draw a hard-and-fast line between necessary and advisable alterations. No alterations are recommended by the London Sanitary Protection Association unless it is believed that there is possibility of danger from the present state of affairs. What they do in every report is to place the recommendations in what they consider the order of their importance. In the event of the member receiving the report being unable or unwilling to carry out all the alterations, his natural course is to begin by putting in execution those which are recommended first. To say, however, so many of these alterations are necessary, so many only advisable, is a responsibility far too great for such an association to take. If that, or anything equivalent to it, is to be said by anyone, it should be by the medical adviser of the member.

I am, Sir, your obedient servant,

Adam-street, Adelphi, London, W.C., W. K. BURTON.

Jan. 28th, 1883.

Inspector-General Bernard.—Such a question cannot be anticipated. The body to which judicial functions is assigned must act on its own responsibility.

Surgeon (Barcelona).—The Students' Number of THE LANCET.

"OUR INTELLECTUAL FORCING HOUSES."

To the Editor of THE LANCET.

SIR,—Your excellent leader on the above, in THE LANCET of Jan. 20th, is one which should be published throughout the length and breadth of the land. All parents and instructors of our boys and girls would do well to give it their serious consideration. I venture to send you some local papers containing a few remarks of mine on this important subject which roused the indignation of some "highly" educated individuals in this town. It is satisfactory to find that my opinions have been endorsed by you in a very striking manner, and that you have raised your powerful voice against this growing evil—I mean "intellectual forcing."

As the father of a large family, I am deeply interested in the subject of education, especially as regards girls. From what I have seen of their tuition, I am thoroughly convinced that your article is not one whit too strong, and moreover that in some instances the subjects taught are useless or even injurious and thoroughly distasteful both to pupils and parents. I am, Sir, yours obediently,

Bradford, Jan. 29th, 1883. EDWARD T. TIBBITS, M.D.

An Old and Anxious Subscriber had better apply at the office of the Crown Agents for the Colonies, Downing street, S.W.

Mr. H. G. Lang had better make application to the Registrar of the university.

KEROSINE OIL.

To the Editor of THE LANCET.

SIR,—A few days ago I was summoned hurriedly to see a child, between one and two years of age, who had swallowed accidentally some lamp-oil (kerosine). As the amount swallowed was very small, and readily induced vomiting, I contented myself with causing further vomiting, and administering castor-oil. On looking up the subject afterwards for information, I was unable to come across anything bearing on it. Therefore I have addressed myself to you, and shall feel greatly obliged to any of your readers who will answer the following questions:—1. What is more or less the analysis of kerosine-oil? 2. Is it poisonous, and if so in what dose and with what symptoms? 3. What medicine would it be judicious to administer as an antidote, or partial antidote, if any?

I am, Sir, yours truly,

January 14th, 1883. TROPICUS.

Mr. R. Macdonald.—The suggestion is a good one, and might be submitted to an instrument maker.

Dr. T. Claye Shaw's letter will appear in our next.

"ELECTRIC STORAGE WORKS AND LEAD POISONING."

To the Editor of THE LANCET.

SIR,—Our attention has been called to your article on the necessity of measures being adopted for the better preservation of the health of our *employés*. I have to thank you for your suggestions, and to say that we are communicating with an eminent medical authority on the subject. I am, Sir, your obedient servant,

F. M. COLLET, General Manager.

Electrical Power Storage Company, Great Winchester-street-buildings, E.C., Jan. 31st, 1883.

A NOVEL EXPLANATION OF THE POVERTY OF LONDON HOSPITALS.

Live and Let Live attributes all the difficulties of London hospitals to the co-operative store system. This system may be open to criticism, but it is rather far-fetched to blame it for the impecuniosity of hospitals.

THE ANTEGENETIC DISCOVERY OF FŒTAL SEX.

To the Editor of THE LANCET.

SIR,—Medical scientists have hitherto greatly relied upon the ascertained rate of pulsation of fœtal hearts as a means of an antegenetic discovery of the sex of the child. (The term antegenetic conveniently embodies the idea "before birth," and is homologous with the word antenuptial.) But the method is admittedly unreliable, even to the most accomplished ear, and the object of observation itself gives rise to so many fallacies that any conclusion drawn from it must be, to a great extent, conjectural.

There is, however, a common expression as to the manner of "carrying" the child—the external appearance during gestation—which has not received the attention which I believe it deserves. Simply stated, the form of the abdomen is a great means of diagnosing the fœtal sex, and is, after a little training of the eye on the point, less open to fallacy, though *ex facie* more so than the counting of the cardiac pulsations. Briefly formulated, if the form of the abdomen be conoid and projecting (child carried in front), the child is male; if the form be more flattened and rounded (child carried round about), the child is female. The manner of gestation must be observed personally; no statement of the patient is to be absolutely relied upon. Absolute size of abdomen I do not now notice to have much bearing on the question, save as a guard against occasional cases of plural birth.

These principles have been put to a practical test in the course of the last twelve cases of labour which I have attended, and with the following results:—In two I could make no prediction, owing to the children having entered the world almost simultaneously with my entering the room; in a third (which I delivered for a midwife with the indicating axis-traction forceps, which I described in THE LANCET of 29th July last) it was a matter of greater concern to see the sex of the child than to predict it, especially as the conditions for prediction were unfavourable. The remaining cases were those of eight multiparæ and one primipara, who gave birth to seven male and two female children, all cases of single pregnancy it will be seen, and all were head presentations. As to time, one was three weeks, another four days before, and the remainder in the course of the first stage of labour. Position and dress have, in most cases, no great influence on the result. I have reason to believe the method applicable to breech presentations, and to a period of at least two months before delivery. I positively diagnosed the sex of seven of the nine, but was more guarded in the cases of two of the multiparæ, to whom I "expressed the opinion" that the children would prove to be males. They were males, so that I was correct in all the cases where there was any ground for judgment. My reasons for less confidence in the two cases mentioned were, in the one, an habitually small parturient projection, but the patient remarked that "she carried this one more in front than the last," which was a girl; and in the other a rather indefinite conoid shape, due to abdominal obesity, which is a source of occasional indetermination. In the latter case the fœtal heart was 144 in the interval of a pain; in the former I did not auscultate.

As yet I have not even constructed an hypothesis to explain the facts, but further clinical observation may give rise at least to a theory. And this observation may be very well made and recorded by using a strip of pliable metal, such as lead, for the purpose of obtaining an outline of the abdomen in the plane passing through the spinous process of the second lumbar vertebra and umbilicus, and a tracing of the abdominal curve between the xiphoid cartilage and the pubis.

I am, Sir, yours sincerely,

A. DRUMMOND MACDONALD, M.B. Ed.

Peel-street, Dingle, Liverpool, Jan. 1883.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Joseph Fayrer, London; Dr. Sturges, London; Mr. W. Weir, Norwood; Mr. Mackenzie Booth, Aberdeen; Mr. Pounds, Rochester; Dr. W. R. Thomas, Sheffield; Mr. Raffety, London; Dr. G. Gulliver, London; Mr. Bately, Gorleston; Dr. Bampton, Plymouth; Dr. Heron, London; Mr. Doyle, Southsea; Dr. Tibbits, Bradford; Mr. F. Treves, London; Mr. Macdonald, Millwall; Mr. Herder; Mr. J. P. Glover, London; Mr. F. K. Green, Bath; Dr. Oliver, Harrogate; Mr. Savory, London; Dr. J. Ewart, Brighton; Mr. Ogilvie Grant, Inverness; Mr. Sampson, Chesterfield; Mr. Meyers, Hounslow; Dr. Wahltuch, Manchester; Mr. Trentler, Fletching; Mr. Pughe, Liverpool; Mr. Neville Stephen, Marseilles; Mr. Cole, London; Dr. Campbell Pope, London; Mr. Tom Bird, London; Dr. Macdougall, Carlisle; Dr. Chapman, Hereford; Dr. Claye Shaw, Banstead; Mr. Wright, Manchester; Mr. Jennings, London; Mr. Harrington Parr, Lancaster; Mr. Lang; Mr. Le Page, Durham; Dr. Harding, Whitlielsea; Mr. Shann, York; Mr. Benton, London; Dr. Biss, London; Mr. Banatvala; Dr. Dunlop, London; Dr. Barry, London; Dr. Alderson, Hammersmith; Dr. Macpherson, Glasgow; Dr. M. Mackenzie, London; Dr. Denton, Steeple Clayton; Mr. Ellis, Newcastle; Dr. Dixon, Warboys; Dr. A. B. Squire, London; Mr. Baker, Newcastle; Mr. Gubbin, Sheffield; Messrs. Vilmorin and Co., Paris; Mr. Williams, Wolverhampton; Mr. K. Burton, London; Mr. Thompson, London; Messrs. White and Son, London; Dr. Wise; Dr. Fussell, Brighton; Dr. Wearn, Beckenham; Mr. Gick, Dublin; Mr. Dalzell, Lesmahagon; Dr. Jos. Rogers, London; Mr. Whiteley, Driffield; Messrs. Kelly and Co., London; Mr. G. F. Crook, Leeds; Mr. Collet, London; Mr. James Startin, London; Mr. Walsham, London; Wanderer; Small Means; L.R.C.P.I.; W. D. S. E.; N.; Divisional Surgeon; Sylva; Live and Let Live; M. S.; A Lover of Pure Air; S. J. J.; A Young Surgeon; Puzzled; N. B.; Innocens; Tropicus; &c., &c.

LETTERS, each *with enclosure*, are also acknowledged from—Sir Henry Thompson, London; Messrs. Bell and Co., Edinburgh; Mr. White, Norwood; Dr. Squire, London; Mr. Smith, Ongar; Mr. Woolley; Mr. Senior, Lynn; Mr. Cornish, Manchester; Dr. Mackay, Crook; Dr. Thompson, Croydon; Mr. E. N. Smith; Messrs. Isaacs and Co., London; Mr. Nestle, London; Dr. Skerritt, Bristol; Messrs. Kilner, London; Miss Freeman, Chichester; Messrs. Maclehose and Son, Glasgow; Messrs. Beal and Co., Brighton; Messrs. Butterfield, Northampton; Mr. Johnson; Mr. Davis, Torquay; Mr. Jeffery; Mrs. Skinner, Winchelsea; Dr. Jones; Mr. Verity, Dewsbury; Mr. Bacot, Blandford; Dr. Miller, Reading; Mr. Walker, Pickering; Mrs. Lawrence; Dr. Eberle, Thirsk; Mr. Grace, Bristol; Mr. Luck, Hingham; Messrs. Douglas Brothers, Bangor; Mr. Hay, Salford; Mr. Whiteley, Leeds; Mr. White, Bayswater; Mr. Kemp, Castleford; Mr. Sloane, Bradford; Dr. Moore, Rothwell; Mr. Cave, Bromyard; Dr. Skrimshire, Clydach; Mr. Griffiths, Swansea; Dr. Habershon, London; Mr. Harrison, Liverpool; Mr. Rhodes, Liverpool; Mr. Davis, Torrypandy; Dr. McBride, Wigtown; Messrs. Montgomery and Plumbe, Maidenhead; Dr. Taylor, W. Brighton; Messrs. Deighton and Co., Cambridge; Mr. Beenan, Ashton; H. R., Stockport; P. F.; R. E. J.; Sigma, Llanfair; Beta, Stoke Newington; Principal, Seaford; J. G., Warwick; J. K.; B. F.; Herbert, Stafford; A.M.D.; Mamillus; M. B., Guildford; Gamma; C. F. W., Camberwell; Herodotus; J. W.; Delta, Camden-town; J. P., Pemberton; T. H., Kentish-town; X. Y., Nottingham; Bastian; Medicus, Folkestone; Pleuritis; &c., &c.

Salisbury and Winchester Journal, Belfast News-letter, Derbyshire Times, Weston-super-Mare Gazette, Sunderland Echo, Lincolnshire Herald, Bradford Daily Telegraph, Newcastle Daily Journal, &c., have been received.

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